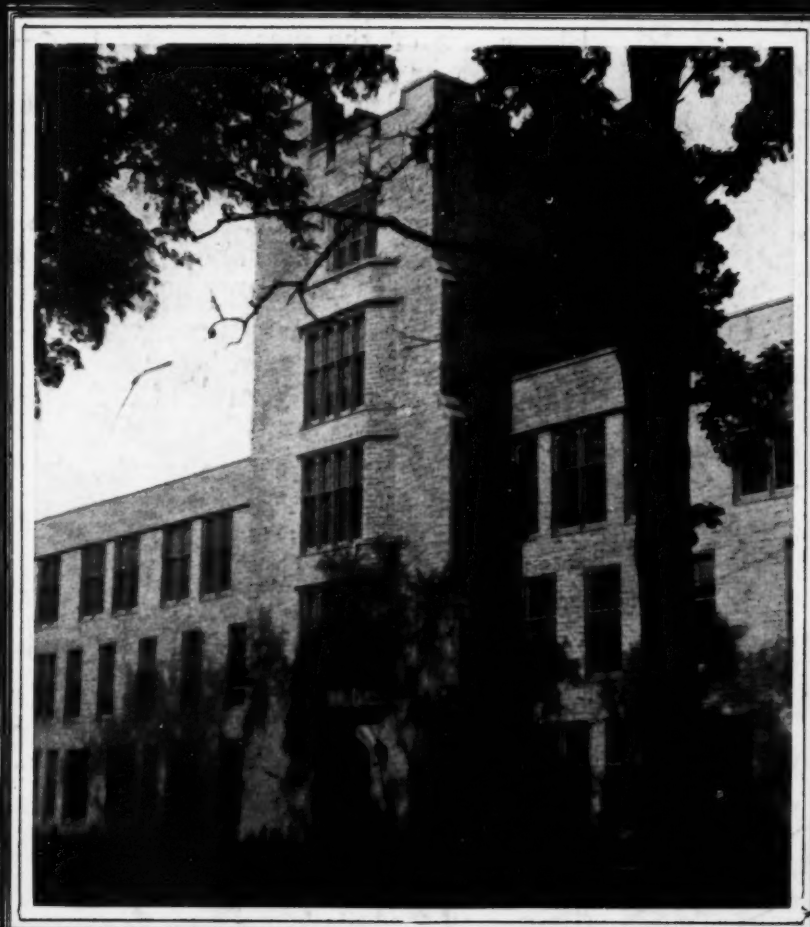


The NATION'S SCHOOLS

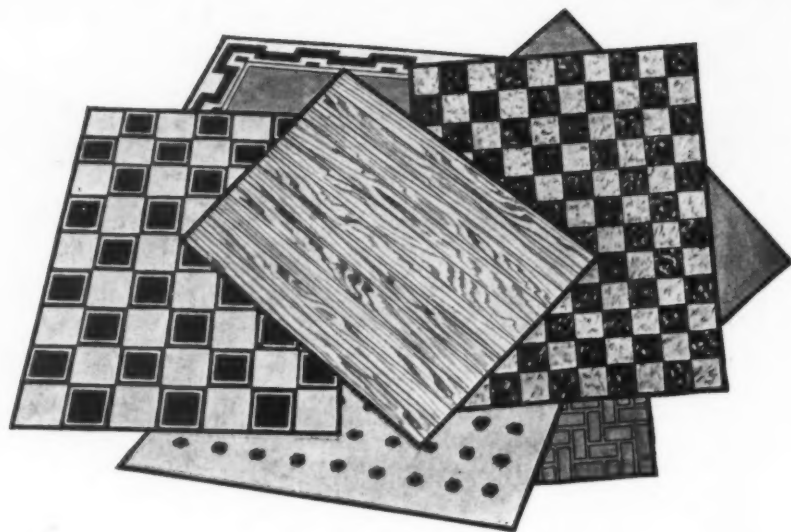
DEVOTED TO THE APPLICATION OF
RESEARCH TO THE BUILDING, EQUIPMENT
AND ADMINISTRATION OF SCHOOLS

VOL. IV
No. 6

DECEMBER
1929



Published by THE NATION'S SCHOOLS PUBLISHING CO., Chicago.

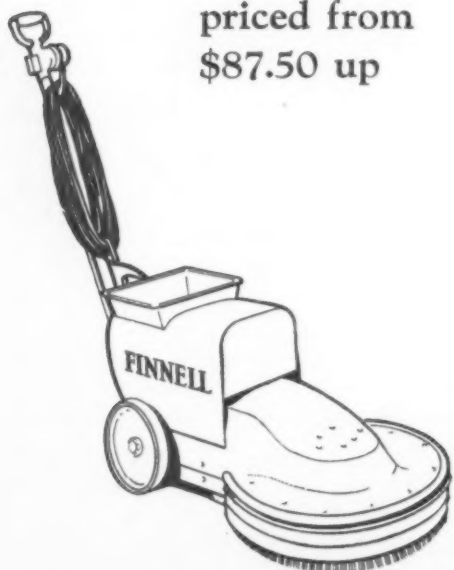


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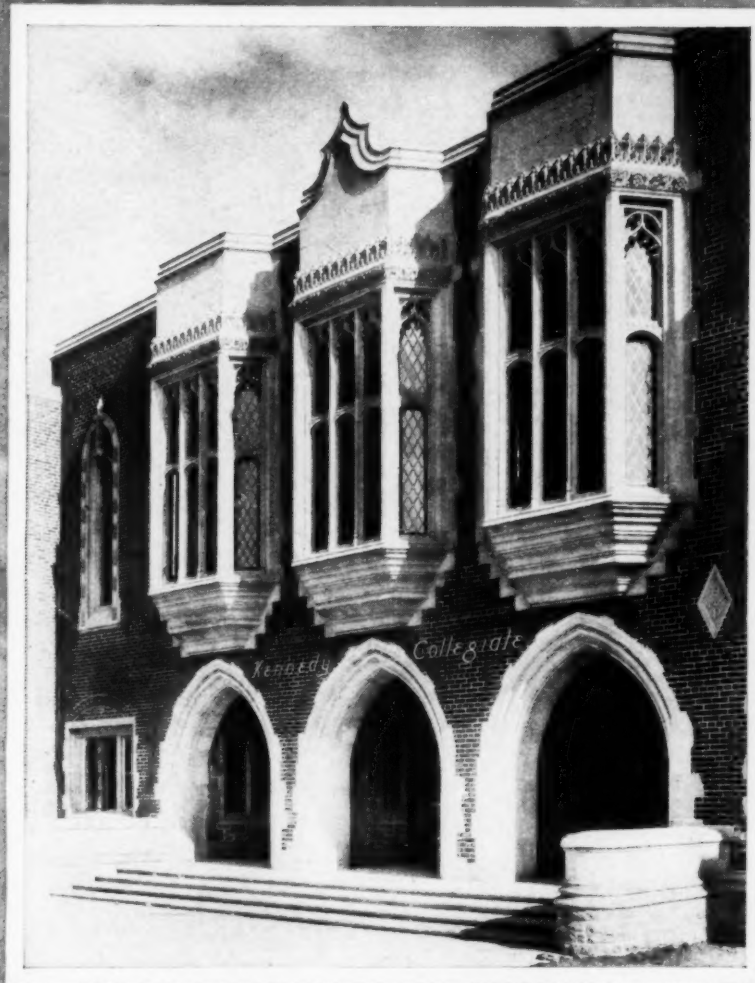
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Industrial Cleaning Materials and Methods

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Published on the fifteenth of each month by

THE NATION'S SCHOOLS PUBLISHING CO.

Member Audit Bureau of Circulations

President, OTHO F. BALL Secretary, STANLEY R. CLAGUE Treasurer, J. G. JARRETT

919 NORTH MICHIGAN, CHICAGO—Telephone, Superior 6402

NEW YORK OFFICE—11 West 42nd Street. Telephone, Longacre 6591

SUBSCRIPTION RATES—Domestic, \$2.00. Canada and Foreign, \$2.50. Single copies (current), 25c. Back copies, 50c. Domestic rates include United States and possessions.

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THIS MONTH

The transformation of a public school system into an educational laboratory in which each child receives individual guidance is described by Carleton Washburne, superintendent of schools, Winnetka, Ill., and Marion Carswell on page 23.

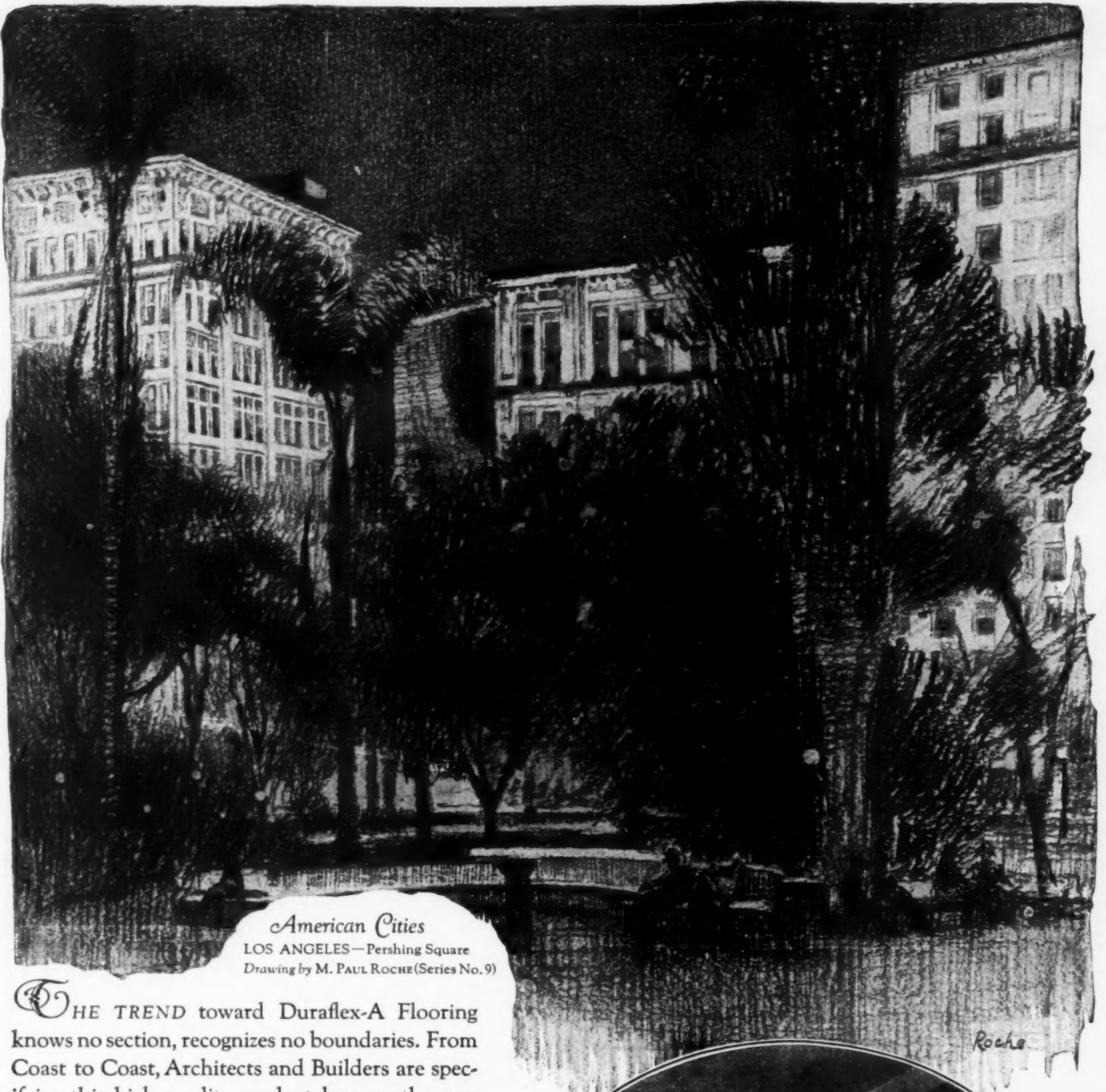
To prepare defective children for mingling with the world in later life, a Michigan school makes it possible for such children to associate with normal pupils. An

illustrated description of the plan and the building is given by Mr. Childs on page 37.

Professor Leonard, in his article on page 45, presents a plan for the revision of the present methods of teaching English in an effort to combat the prevalence of incorrect forms of speech.

The question of separate training for rural teachers is discussed by Professor Butterworth on page 58.

Valuable suggestions for the school official who has to choose a site for the new school are given by Mr. Reese on page 63.

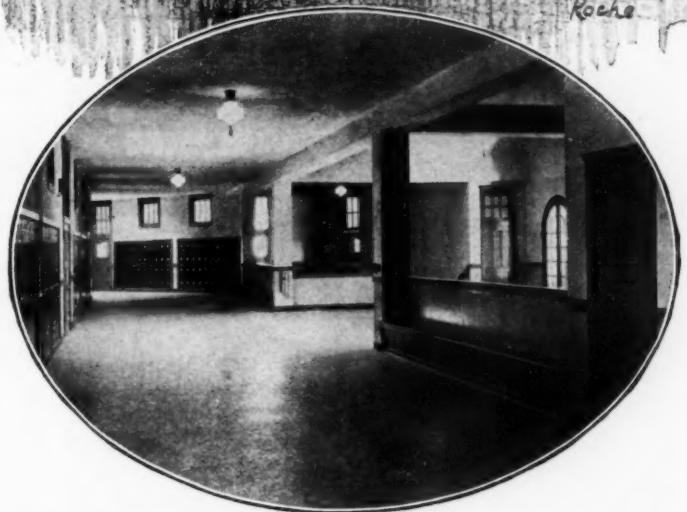


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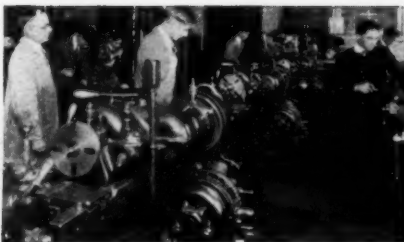
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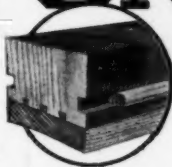
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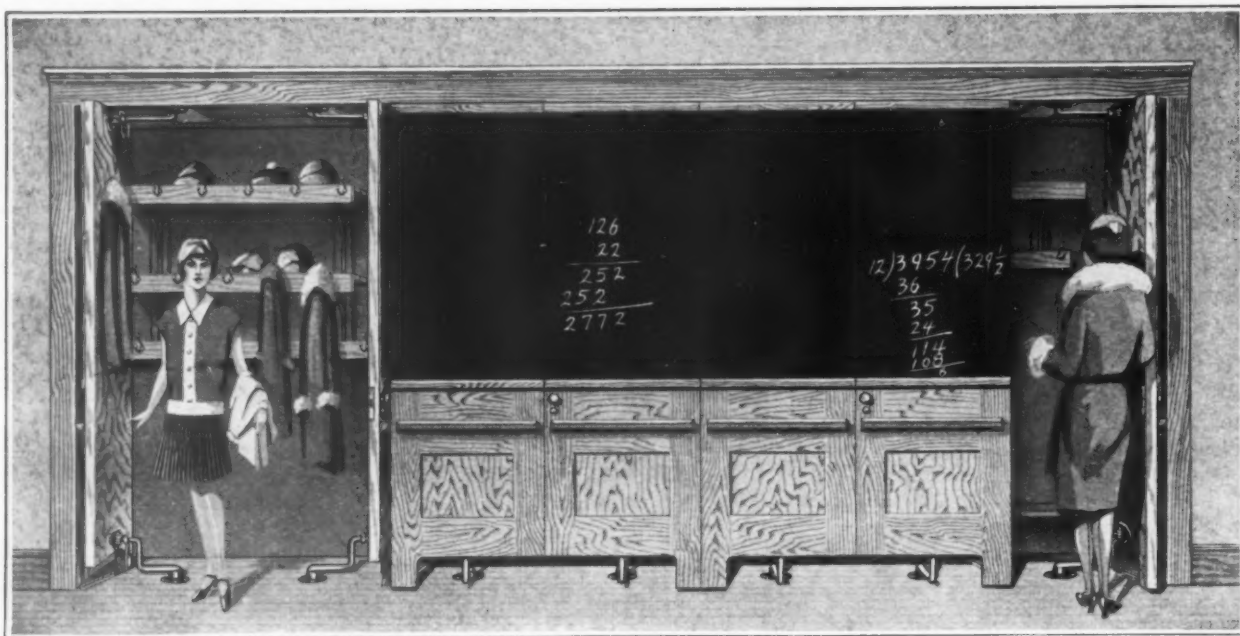
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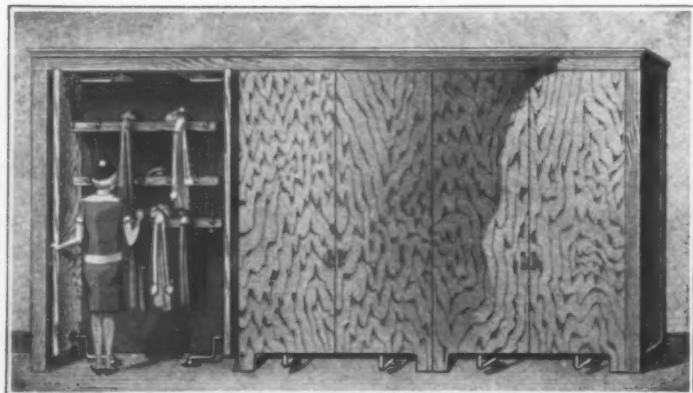
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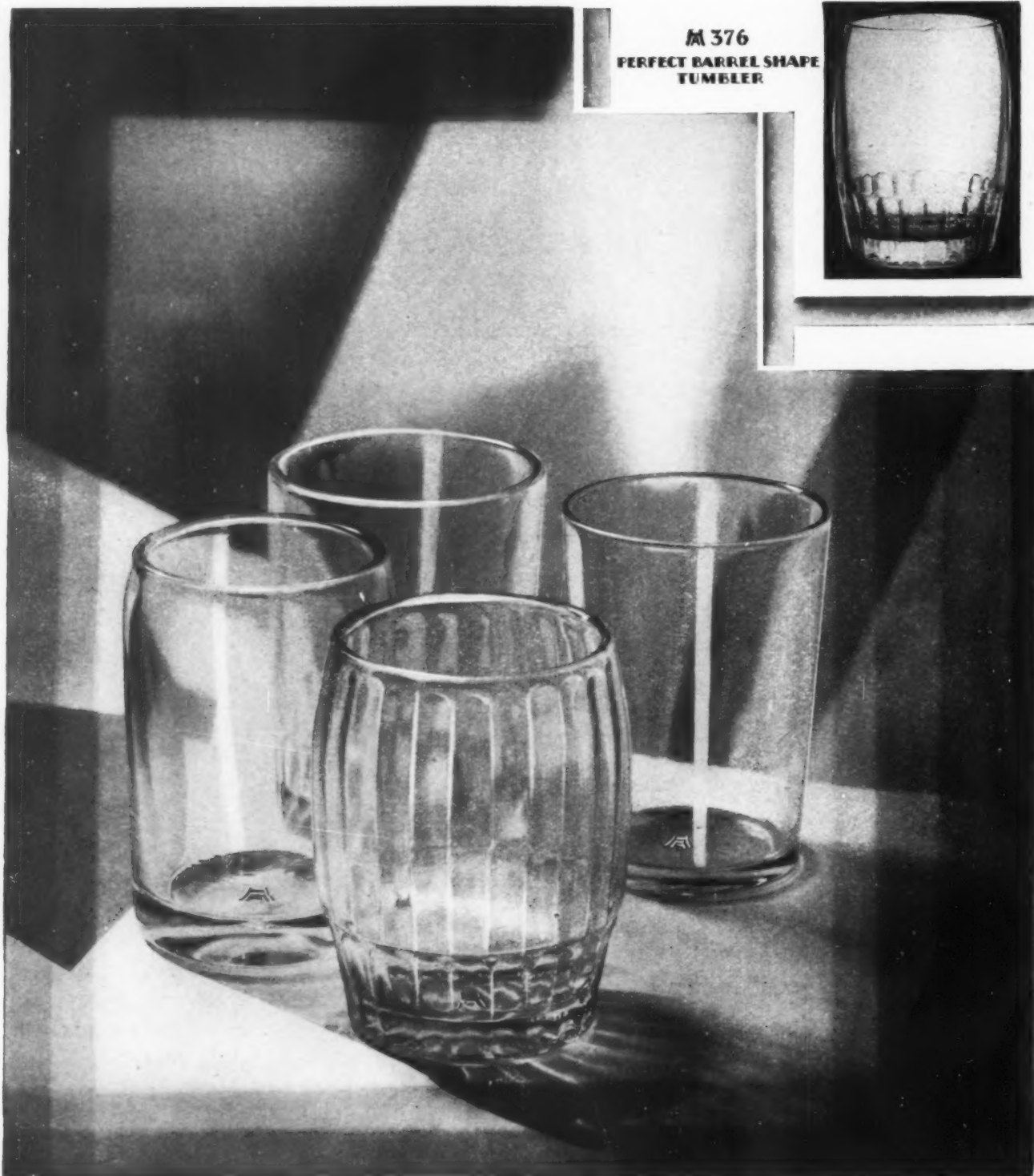
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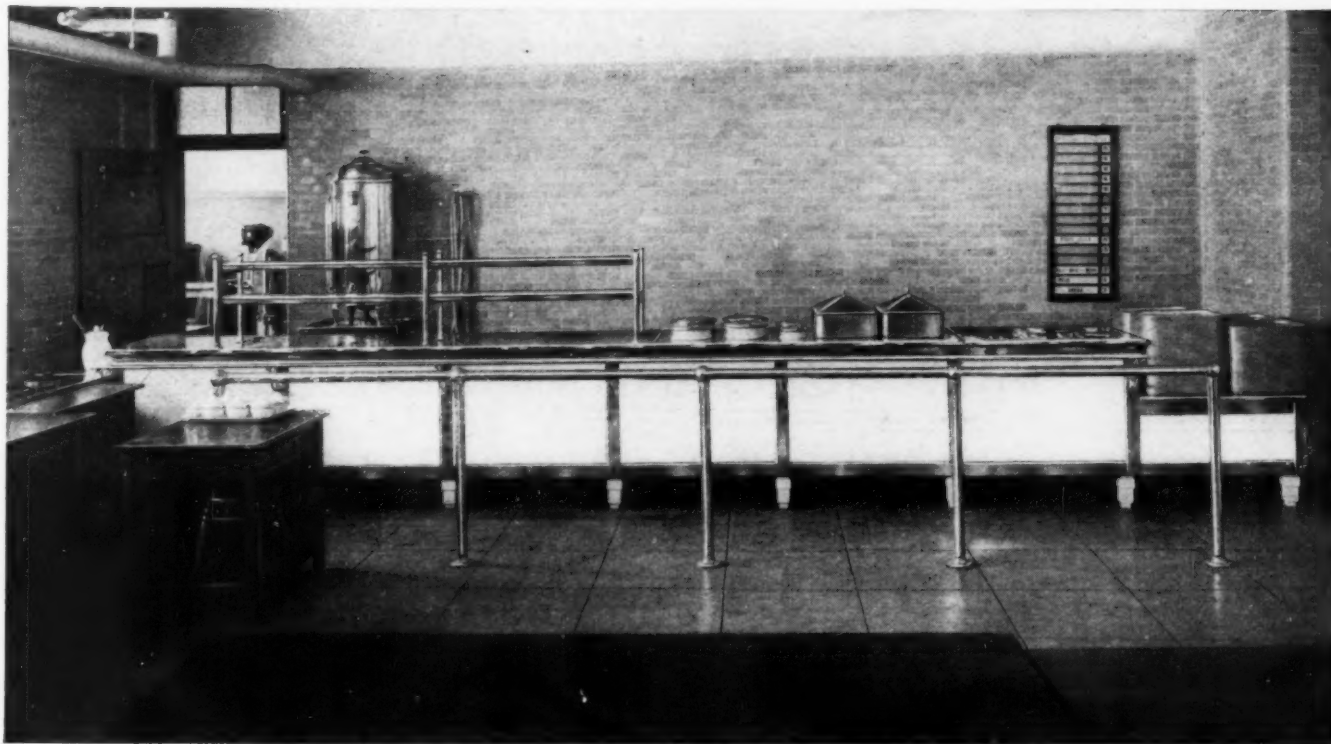
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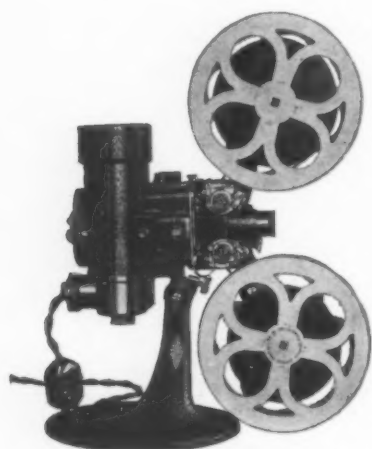
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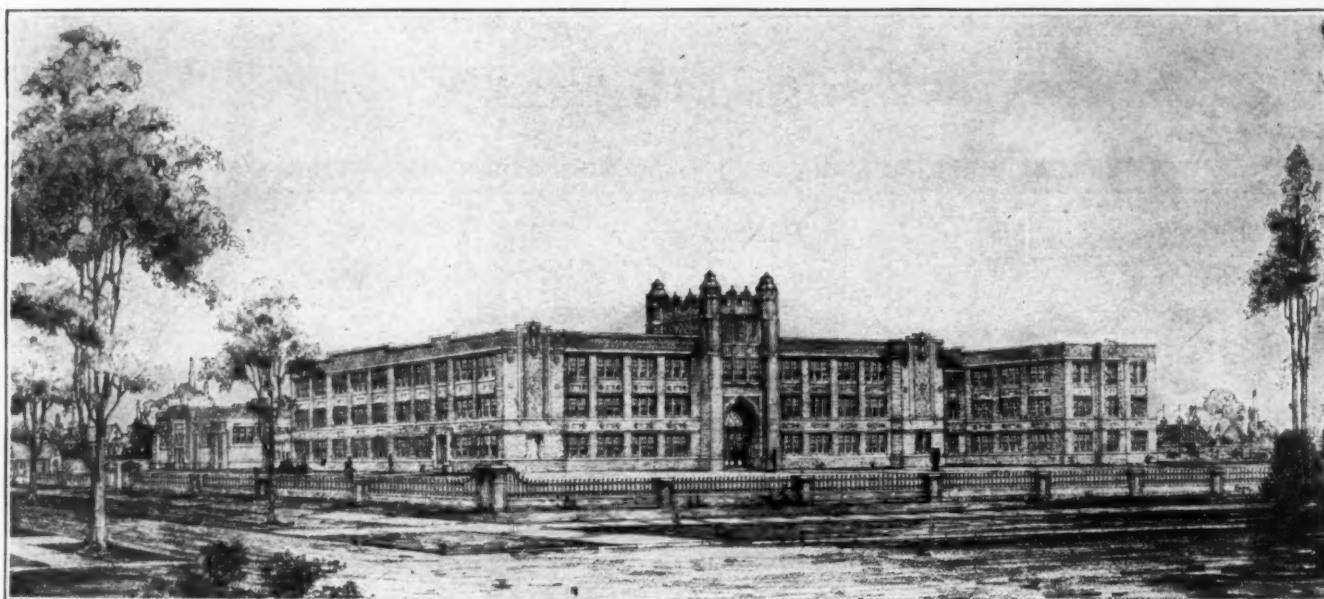
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City.....State.....

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General Contractor: Tankersley Construction Co.

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Oklahoma City Also Chooses Buckeye Heatovens



Series 100
Buckeye Heatoven.

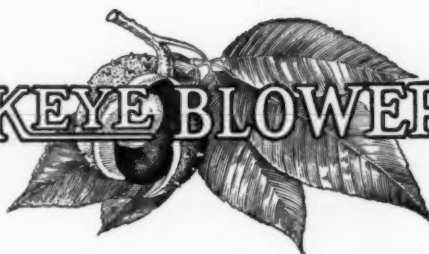
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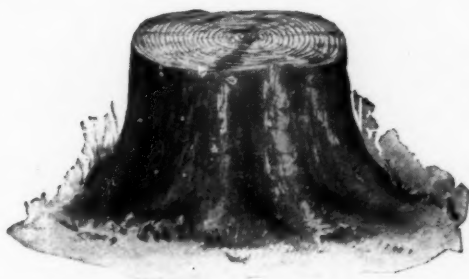
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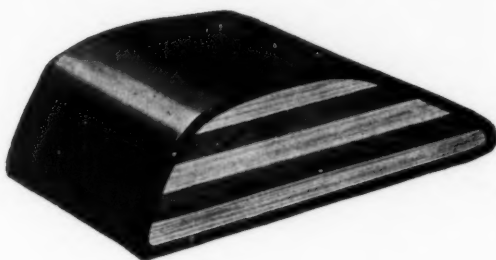
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We and others have tried to make toilet seats as strong, as light and as sanitary by other methods. But it can't be done. Only *laminated* construction can give the abuse-defying strength of Whale-bone-ite—the careless abuse that every public toilet seat receives. Fourteen years and a million Whale-bone-ites in use have proved it. To-day, nearly all seats going into public toilets are of laminated construction.

Its handsome polished Whale-bone-ite surface will last a life-time. It is easy to clean and non-inflammable.

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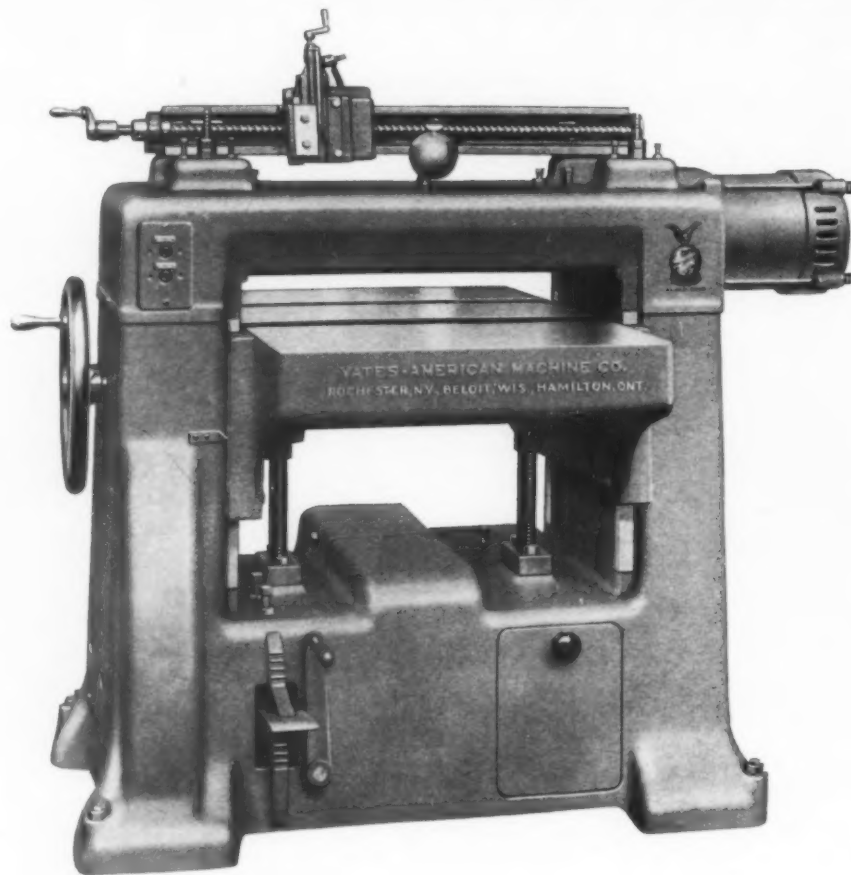
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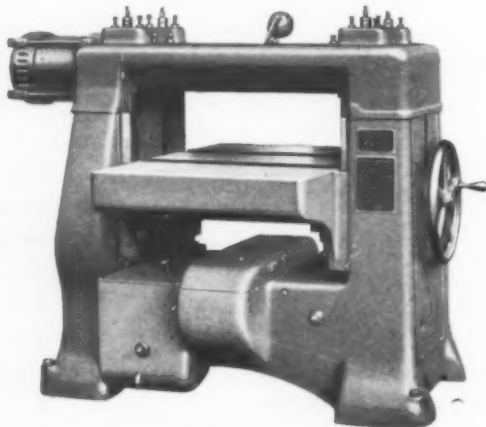
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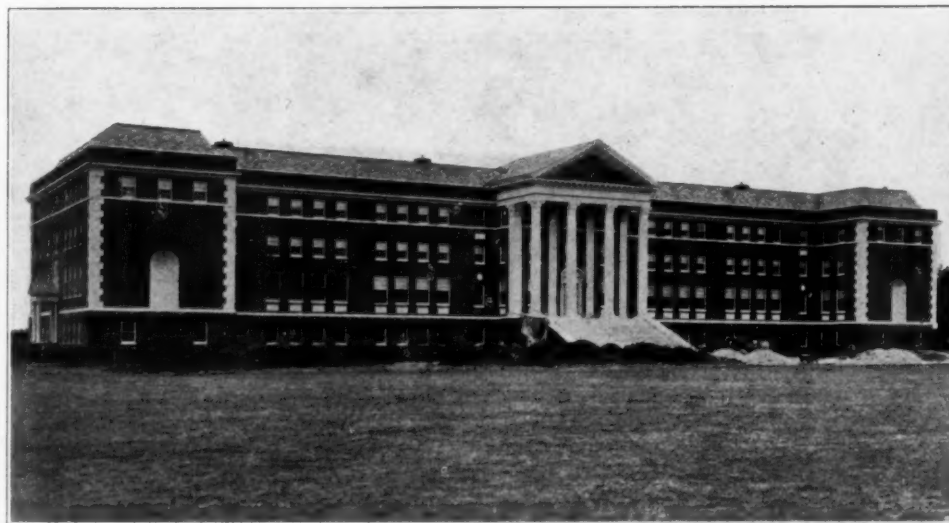
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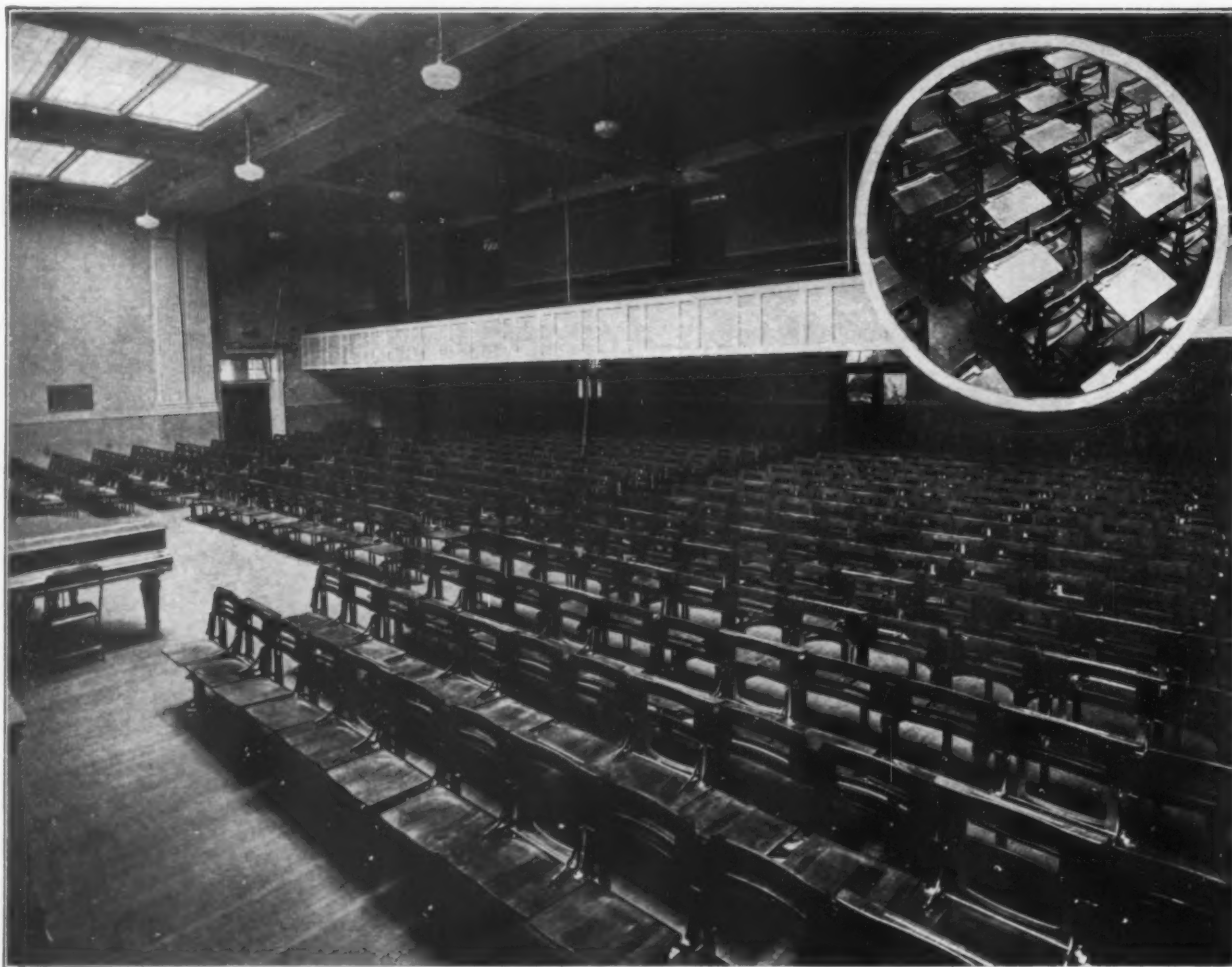
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DEVOTED TO THE APPLICATION OF RESEARCH TO
THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME IV

DECEMBER, 1929

NUMBER 6

Making an Ideal Come True

The new philosophy of education, in spirit and in practice, will be the central theme of the sixtieth annual meeting of the Department of Superintendence

BY FRANK CODY, SUPERINTENDENT, DETROIT PUBLIC SCHOOLS AND PRESIDENT, DEPARTMENT OF SUPERINTENDENCE
OF THE NATIONAL EDUCATION ASSOCIATION

AS A lad, in the late seventies and early eighties, I went to school with other boys and girls in a little rural village. It was a typical school of that time. The building was crude; there was little equipment other than rude desks; there were few aids to learning in the form of books and pictures. The course dealt chiefly with dry textbook knowledge. The teachers, all too often, taught dead subject matter and disregarded opportunities to tie up their teaching with life outside the school.

Fortunately for me, however, there was an occasional teacher with vision. Such a teacher saw the value of the out-of-school experiences we boys were having. She made use of them in her teaching. She even varied the traditional program in the direction of more complete living.

I think that such a teacher must have aroused my early interest in teaching and my desire for a school that should be truly a school of life. Immediately after completing high school I began teaching the fifth and sixth grades in my own town. I experimented with the vague ideas I had about making my schoolroom a center of real life for my pupils.

After a year or two of teaching I attended a near-by normal school. Here I took the usual course which, in general, was formal and stilted. But, as in the grammar school, there were occasional teachers who stirred me by their ability to relate schoolroom life to other life.

After I left the normal school, circumstances took me to a little suburb of Detroit. It was an industrial settlement with a reputation for being "hard." I entered upon my duties with the usual pedagogical make-up of the period. A Prince Albert coat, round rubber cuffs (they made impressive sounds when used in gesturing) and a mustache were the outstanding elements.

The school I found did not differ much from those of my earlier experiences. The whip was still the soundest pedagogical device. And yet, as always, there were individual teachers who sensed the need of vitalizing and humanizing the work of the classroom. I set myself to helping them in this task.

Gradually I began to talk about these things with other school men. We read the early books of famous philosophers. We talked with parents and we were friendly with children. We learned much of the family life of these youngsters and of the struggles they went through. I met over and over again the same problems that I had been faced with as a boy and I found the same combination of the youngsters against the school when it interfered with life. I noted our failures and our successes. I began to question whether it were possible to make the school not a stilted imitation of some assumed life but rather an integral part of life itself. I thought that teaching, instead of being formal and lifeless, could be made a thing of pleasure.

As these thoughts crystallized and began to take the form of a definite plan or program, I vowed that if the opportunity ever presented itself I would attempt to make the schools as life itself. One of the lessons learned during this period was that life was cooperative.

The Important Elements of Life

Since becoming superintendent of schools in Detroit I have attempted, with the aid of teachers, principals and staff to vitalize the schools; to bring them abreast of life; to make them dynamic rather than academic, and, in brief, to put into practice my philosophy of education.

At this point some curious reader will raise the issue of just what all of this has to do with the sixtieth program of the Department of Superintendence. The answer is—everything. The program planned for the 1930 meeting at Atlantic City is as close an expression of this basic philosophy as it has been possible to make it. Its inception lies in my early experience. The general theme is "Education in the Spirit of Life." To-day, education is life. The statement of the philosopher, so radical in the opening years of the twentieth century, is now generally accepted, at least in principle. Technique and practice, owing to the nature of our school organization, lag behind. The interesting fact, however, is that American education is now engaged in putting this ideal into practice.

The general theme has been expanded into a series of seven factors that constitute the important elements of life. To each of these a definite and balanced assignment has been made.

At the first general session the theme is "Life Is Idealistic." Education must aim high. Education should not only represent life as it is but must be organized and developed in terms of definite individual and social ideals. As we would have life, so must our education be. In other words there must be a definite balance between ultimate and working ideals. Education must not only prepare for living in the present but must provide means for betterment in the future.

Life is also friendly. This represents the theme of the second general session. In our social organization there must be the proper balance between individual freedom and social welfare.

Life is also dynamic. Education must move forward aggressively. Our entire industrial civilization is based upon the principle of change in terms of facts and needs. Our social institutions alone are organized traditionally. To develop education in the spirit of life it is essential that we make provision within our institutions

for the determination of need, of conditions and of possibilities for improvement. Our entire program must be built upon the assumption that all activities will be regularly submitted to scrutiny to determine their value and their worth. Our institutions must be organized in terms of our civilization. They must be dynamic instead of academic.

Life is also practical. Education, therefore, must be efficient. We cannot, as was done in the days of my youth, place a group of children, a teacher and some textbooks in a classroom and expect that the process of education will "take," as is the case with vaccination. We must study methods and materials, personnel and agencies, as objectively as we can to secure ever increasing efficiency in the interests of society and of the child.

Life is recreative. Our civilization is a complex one. Increasing use of mechanical agents has revolutionized the old conception of leisure.

Increased leisure is at once an opportunity and a threat. If used constructively as true recreation in a spiritual, moral and physical sense, it offers the way to growth and development; if neglected, it presents unusual opportunity for social disintegration. Education must develop training for the constructive use of leisure time.

Life is progressive. Needs change rapidly. An epoch-making invention may upset all our carefully laid plans. Social organization must be flexible enough to adjust itself to new social, industrial and ethical needs. Flexibility is achieved in two ways, first, through an open mind and second, through definite provision in the mechanics of organization. Both are essential to present day needs.

Group Understanding Is Needed

Finally, life is cooperative. Education rests upon the will of the people. Popular attitude is determined by confidence and understanding. Education must therefore cooperate with the social group in a continual process of developing group understanding, appreciation of need and aggressive support. Education itself must cooperate. It must not be aloof, a stranger to the community. It has a twofold responsibility in educating the community and in understanding and interpreting the community.

All of the programs for the meeting of the Department of Superintendence have been directed toward expressing these themes in a definite way. Speakers have been selected from all parts of the country with a view to their possible contributions in these fields. Emphasis throughout has been laid upon progressive achievement.

Individual Guidance as It Is Applied in a Village School System*

The Winnetka technique has transformed a public school system into an educational laboratory that makes it possible for each child to teach himself and to progress at his own rate of speed

BY CARLETON WASHBURN, SUPERINTENDENT OF SCHOOLS, WINNETKA, ILL., AND MARION CARSWELL, PRINCIPAL, HUBBARD WOODS SCHOOL, WINNETKA, ILL.

THERE are in education to-day a number of antitheses. It is the "century of the child," and the "new education" proclaims his right to happy, immediately satisfying life; but it is the age of the machine, and society demands training for efficiency. For some thinkers the war intensified individualism and the right of each person to develop his own way of living; for

others, it showed the need for collectivism and the inculcation of a common philosophy of life. Youth is discarding old mores and clamoring for freedom and the right of each individual to vary from the mass; yet cooperation is the watchword of the day, industries merge, a League of Nations struggles into existence, even sectarian religions seek to reunite. And the schools are swayed back and forth in these opposing currents of thought.

Hamburg's *Gemeinschaft* schools proclaim the right of each child to grow into the particular kind of person he was meant to be. Russia pre-

*Digest of addresses given at the World Conference on New Education, Elsinore, Denmark, August, 1929, and at the Sixty-Fifth Convocation of the University of the State of New York, Albany, October 18, 1929. This article is being published in substance in "Towards a New Education," (Report of the Fifth International Conference of the New Education Fellowship) Knopf, New York and London. \$2.50.



Third grade children, basing their group and creative activities on Russian life, found a field where reeds grew that would be valuable in thatching a Russian peasant hut they were building.



In connection with their fifth grade work, a group of girls and boys attired in Greek costumes develop a rhythmic original Greek dance in conjunction with their dramatization of an episode from Greek life.

scribes the modes of thought for all her thirty million children. New schools flourish on the philosophy of creative education, while especially in America standardization of tests and scientifically constructed curricula are dominant in many of the most forward looking schools.

Among the educational groups trying to interpret the swiftly changing life around them and trying to find ways of teaching that will direct but not restrict life's onward movement, is the faculty of the public schools of Winnetka, Ill. The faculty is composed of 100 men and women compactly organized into a cooperative group, yet each free to do his own thinking and make his individual contribution. They have transmuted the public school system of Winnetka—a fairly prosperous residential suburb of Chicago—into an educational laboratory. In this laboratory they are evolving a philosophy that attempts to synthesize the divergent educational viewpoints of to-day. They are working out a technique for putting this philosophy into practical operation; they are utilizing the instruments of educational science to measure the effectiveness of their procedures, and in the light of their findings they are continuously improving their school methods and enlarging the children's opportunities.

Here is one formulation of their philosophy:

"The Winnetka curriculum is based upon four principles. Every child has a right to master those knowledges and skills that he will probably use in life; every child has a right to live naturally, happily and fully as a child; human progress depends on the development of each individual to his full capacity; the welfare of human society requires

the development of a strong social consciousness in each individual."

The technique involves a clear distinction between the functions of two parts of the curriculum. One part seeks to give each child mastery of those knowledges and skills that in all probability he will use either as a child or later as an adult. The other part is devoted to the development of his own especial interests, appreciations and capacities under conditions that will inculcate in him a deep-rooted social consciousness.

The knowledge and skills he needs to master are determined by research. It is the avowed goal of Winnetka to require only learning that can be shown to have direct and almost certain use in every child's life. Having specified with precision the things all children need to master, the faculty has developed further research as to the stage in each child's mental development at which he can most effectively learn any given element and as to the most efficient means of his learning it. Gradually, as the results of this research become available for use in the classroom, the Winnetka curriculum is being remade, textbooks are being rewritten and methods are being revised.

From the beginning of this reconstruction, however, it has been recognized that if all widely differing children are to achieve mastery of the commonly needed knowledges and skills, their learning must be individual. Each child must have an opportunity to teach himself and to move forward through his school subjects at his own rate of speed. The technique that makes this individual progress and self-learning possible consists of three steps:

Second grade children often base their activities on the life of the Indians of the Southwest. These children have built an Indian pueblo and are weaving rugs with Indian symbols that they themselves have designed.



First, the curriculum is reformulated in terms of specific units of achievement. These are listed for the child on his goal card, on which a column is devoted to each subject, the subjects being broken up into topics, or "goals," ranged upward from the bottom of the card. After the name of each goal is a blank for a date, to be filled in when the goal is attained. The rising columns of dates give graphic information to child, parent and teacher as to the exact status of the child in each subject.

Second, there are self-instructive, self-corrective teaching materials by means of which the child attains his goals without depending upon class instruction by the teacher. In a skill subject, like arithmetic or a formal language, these materials take the form of specially prepared textbooks in which each topic is broken up into small steps. Each step is introduced by a simple child-like explanation and worked out examples, and consists of ample practice exercises, so arranged that a child who learns the step quickly may skip some, while the slower child has enough practice to achieve mastery. A child stays on each step until he masters it, then goes directly to the next. Children correct their own work by means of the answers that are provided in the text material.

Third, for each goal there is a complete diagnostic test in several equivalent forms. Two or three forms are included in the text material as practice tests, corrected by the children themselves with the help of the answer page. The other forms, covering the same elements, are real tests, corrected by the teacher. The answers to both practice and real tests have diagnostic keys

so that if a child makes an error, he is automatically referred to additional practice on the specific element in which he showed weakness. When a child passes a real test with a grade of 100 per cent—and not until then—the date is entered on his goal card opposite the name of the goal tested.

There are no daily assignments. There are no recitations. There are not even any monthly contracts. The child progresses steadily at his own rate, independent of his fellows, except that he may ask them for help over a rough place or in turn may give some slower child help.¹

Special textbooks have been prepared by the Winnetka faculty, making it possible for a teacher to handle a class of ordinary size on a strictly individual basis, in arithmetic, language, reading, spelling, general science and social studies.

The social studies, however, history and geography, are only partly individualized. In this subject the children begin a topic together, learn the facts individually and pass their tests on those facts individually but do not begin a new topic until the rest of the class is ready. While the faster ones are waiting for the rest of the group to finish the topic, they may follow up additional suggested readings in the subject or may use their surplus time for arithmetic, language or spelling, at their own option.

The social studies are not completely individualized because they derive much of their value from the impact of mind on mind in vigorous group

¹ For more definite descriptions of the technique the reader is referred to *Individualizing Arithmetic*, *Fitting Reading to the Individual Child*, *Individualizing Spelling*, and *A Program of Individualization*, a group of reprints obtainable from Winnetka Individual Materials, Inc., Horace Mann School, Winnetka, Ill. From the same address a complete list of materials prepared for individual learning will be sent free on request.

discussions and because they are an excellent stimulus to group and creative activities.

The group and creative activities constitute the second main division of the curriculum in the Winnetka schools. They include only those things in which children are not expected to be alike and on which, therefore, they are not tested or marked. Half the school day is found to be sufficient, under the individual technique, for a mastery of all the commonly needed knowledges and skills, so half the morning and half the afternoon are left entirely clear for self-expressive and socializing activities, which have no academic purpose. Their purpose is solely to stimulate each child's creativeness, to arouse his individual interests and to help him learn to cooperate with his fellows.

These activities are far from haphazard. For them, as for the individual work, there is a fully developed technique, but a technique of an entirely different nature. Their goal is not to make children alike but rather to stimulate their differences. Instead of working independently, the children cooperate toward some common purpose. Knowledge of facts is no longer the goal; it is a means to an end.

This technique has been tersely summarized by Frances Presler, the supervisor of group and creative activities, in the following statement: "Expression is the overflow of rich experiences and springs from a background of information, imagery and feeling. Such a background is built up during a period of several

WINNETKA PUBLIC SCHOOLS

3RD

TEACHER 4TH

PUPIL'S NAME

Reading	Arithmetic	Language
General Progress	Speed Review	
Promoted to Gr. 5	Promoted to Gr. 5	Promoted to Gr. 5
Gray Oral Rdg. Test Set III, 68 sec., 6 errors	Meaning of Fractions	3 Compositions O. K.
Burgess Silent Rdg. 77	Measurement of Time	Review Commas II
Books Read: 69 points	Liquid Measure	Review Capitals II
" " 56 "	Review Problems	Review Sentences III
" " 56 "	Review Test IV	Comma in Series
" " 54 "	Compound Multiplication	Envelopes
" " 52 "	Arabic and Roman Nos.	Letters
" " 50 "	Simple Multiplication	Capitals—Land & Water
" " 48 "	Multiplication Facts	3 Compositions O. K.
" " 46 "	Adv. Subtrac., 7 (3 min.)	Capitals—Peoples
" " 44 "	Short Divis'n, 6 (3 min.)	Capitals—Places
" " 42 "	Division Facts	Rev. Abbrev. & Commas
" " 40 "	Multiplication Facts	Review Sentences II
" " 38 "	Column Addition	Period, Abbreviation
" " 36 "	Subtr. Facts, 50 (3 min.)	Comma, City & State
" " 34 "	Add'n Facts, 65 (3 min.)	Comma, Month & Year
" " 32 "	Simple Multiplication	Review Capitals I
Gray Oral Rdg. Test Set II, 62 sec., 2 errors	Simple Multiplication	Review Sentences I
Burgess Silent Rdg. 67	Multiplication Facts	Composition III
Books Read: 30 points	Primary Subtraction	Capitals, Any Special Names
" " 28 "	Simple Subtraction	Capitals, Book Titles
" " 24 "	Column Addition	Capitals, Days & Months
" " 22 "	Subtrac. Facts, Complete	Capitals, Mr., Aunt, etc.
" " 20 "	Easy Subtraction Facts	Capitals, Name of Person
" " 18 "	Addition Facts	Capitals—I
" " 16 "	Addition Facts	Composition II
" " 14 "	Simple Addition	Sentence, Test VI
" " 12 "	Addition Facts	Sentence, Test V
" " 10 "	Simple Addition	Sentence, Test IV
" " 8 "	Addition Facts	Sentence, Test III
" " 6 "	Simple Addition	Sentence, Test II
" " 4 "	Addition Facts	Sentence, Test I
" " 2 "	Simple Addition, Review	Composition
Began Gr. 3	Began Gr. 3	Began Gr. 3

READ FROM BOTTOM UP

Opposite each goal column on the goal card is a space in which the teacher records the date on which the goal is reached. The space between the dotted lines represents the amount of work done by a slow pupil working diligently for six weeks. An average child should do more and a bright child considerably more work. Before the card is sent home, a red line is drawn from the last date in one column to that in the next. The distance between the two lines shows the parent and pupil the amount of work covered in the period between reports and whether progress is normal.



The study of Egypt and the early life of the Jews is the background for this Egyptian play created by fourth grade children from the story of Joseph and his brothers.

weeks through literature, information, music, art and accounts of the experiences of the persons considered. The teacher is given a bibliography of each unit, in order to acquaint her with some of the available and usable material from which to create such a background.

"She is also given a list of suggested activities, with the hope of developing her alertness to various possibilities. She is told to make an effort to use such activities as will promote the keenest interest of the children; as will provide the forms of expression and social development most needed by the particular group, and as will use the richest contribution of the unit of material studied.

"When the children are full to overflowing with a feeling for the unit used, they are ready to choose an activity. Children should always make their suggestions for activities first. The teacher may follow these with her own and any that may seem wise from the outline placed in her hands. The teacher and children should consider the possible values and limitations of the various proposed activities and from this consideration make a joint choice of project."

The project may be a shadow show of dinosaurs; it may be a day of cave man activities on the beach; it may be the building of an Acropolis at one end of the classroom, with the pillars of the Parthenon made of candles fluted with a vegetable cutter, Athene constructed of bronze painted clay and a Panathenaic procession of paper figures operated by strings; it may be a Swiss village, perched in the Alps, made of boxes covered with

dyed sheets, or the classroom may be transformed into a Viking feast hall or the chapel of a medieval monastery. Often it is a dramatization, either with puppets or with live actors. There are no memorized parts, and the play is never primarily for show purposes, although once developed it may be shared with the whole school in assembly. Children make their own costumes and the simple scenery and improvise their parts by living them.

In such activities growing out of the social studies and in similar ones growing out of literature, the classroom group is the unit in the lower grade schools, the subject group in the junior high school (the seventh and eighth grades). There are other activities, however, which regroup the children by interests and still others which unite the entire school. In each lower grade school building, for example, there is a craft room, perhaps partitioned off from one corner of the basement or perhaps a remodeled attic, in which small groups of children of all ages gather together at different times to carry out their special hobbies, such as photography, the making of musical instruments, radios or model airplanes. A teacher is usually with them, different teachers being available in the craft room at different hours for children in whose hobbies they take a special interest. In the junior high school the work is departmentalized and there are twenty or thirty different electives, such as art metal craft, pottery, woodworking, printing, journalism, dramatics and orchestra, as well as academic electives

in advanced arithmetic or perhaps in Esperanto.

Besides these individually chosen activities, there are group exposures. There is much work in music appreciation, not tested work or formal drill but opportunities for the children to hear fine music played or sung. Of course there are many opportunities for the children to sing.

The instruction in appreciation of literature is of the same general nature. The teacher reads aloud to a group of children from books or poems that she loves and that she thinks they will enjoy. Literature is not torn apart and analyzed. The children are not asked to recite it nor are they tested. The literature period is simply a delightful reading hour for sharing enthusiasms and for awakening the potentialities of the different children.

Several groups unite for the team games on the playgrounds. Instead of having a general recess, the children go out to the playground two or three classes at a time and play, with the help and supervision of a trained playground director.

Uniting each school are the self-governing assemblies and the many school committees. There are committees that are responsible for the care of the school grounds and the school buildings, that act as play leaders and take charge of athletic supplies and events, that plan assembly programs, develop and explain the school museum, take charge of the school library and distribute school supplies, to name only a few. Every child serves on some committee.

Results of Technique Analyzed

Since the Winnetka public schools are an educational laboratory, they attempt to evaluate the results of their technics. Such evaluation is often difficult and is never complete. There are, however, two departments that give much of their time to it—the department of educational counsel and the department of research.

The department of educational counsel or child guidance clinic consists of a psychiatrist, a psychologist and a physician, who serve part time, a counselor (a psychiatric social worker) in each building, and a full-time secretary. Children who present special problems of behavior, personality or academic progress are studied carefully by this department. Specific recommendations are made for these individual children. In addition, however, the department is able to discover through them where the schools are failing to make adequate provision for children's needs or even, perhaps, where they are intensifying their difficulties. The counselors are so integral a part of the faculty that they help, in the light of their experience, to modify school

procedure and to determine the educational policies.

The department of research studies the more general results of the Winnetka technique. It cooperates with the teachers by handling the technical phases of curriculum research and research on methods. It helps discover the mental age at which children can most advantageously undertake the study of any process. It carries on considerable research as to school administration and general efficiency. It was the department of research that a few years ago made the survey of the Winnetka schools and later analyzed the high school achievement of children trained under the Winnetka technique.

What a Survey of the Technique Shows

The survey of the Winnetka schools showed that Winnetka children are able, on the average, to master the knowledge and skill subjects a little better than children of the same intellectual endowment trained under other systems, and to do it in a shorter period of time than is usually allotted to academic work. The survey showed also that Winnetka children had far more time for group and creative activities than is provided in most schools, that costs were not increased by the technique, that teachers were not overburdened, that school failures were eliminated and that there was real adaptation to individual differences among children.¹

The study of the achievement of Winnetka children in high school was made with the cooperation of the Township High School, attended by Winnetka children in common with those from three other suburban communities of similar nature but with less individualized school methods.² This study showed that Winnetka children tended to make somewhat better academic records in high school, to participate much more widely in the extra-curricular activities, clubs and other organizations and to occupy more positions of leadership in the high school than did children from other schools.

To think of the Winnetka technique as a finished product is to miss the entire spirit of the Winnetka public schools. The Winnetka faculty are a group of serious minded, growing young people who are seeking to find the most legitimate aims of education and the best ways of achieving these aims. Their procedure is being continually modified in the light of their research and experience. Should their technique become static, it could not prepare children for effective living in this dynamic world.

¹ A Survey of the Winnetka Schools, Public School Publishing Company, Bloomington, Ill., 1925.

² The High School Achievement of Children Trained Under the Individual Technique, The Elementary School Journal, November, 1927.

The Six-Year High School Plan— Arguments Pro and Con*

Which type of organization is better: the separating of the six upper grades into the junior and senior high schools or their consolidation into one undivided unit?

BY CALVIN O. DAVIS, PROFESSOR OF SECONDARY EDUCATION, UNIVERSITY OF MICHIGAN

FORTY-ONE years ago on February 16, 1888, President Charles W. Eliot of Harvard University addressed a meeting of the Department of Superintendence, National Education Association, in Washington, D. C., on the topic: "Can School Programs Be Shortened and Enriched?" The burden of his address was that freshmen were not entering college until they were approximately nineteen years of age and that in consequence they were not receiving their bachelor of arts degrees until they were about twenty-three years of age, or their professional degrees until they were twenty-six or twenty-seven years of age.

The Beginning of the Reorganization

These facts were disturbing to Doctor Eliot. He felt that college graduates should begin to be self-supporting before those ages. Furthermore, he believed that notable economies in time could be effected by beginning secondary education in the seventh and eighth grades, a year or so earlier than was then the common practice. He cited in particular the work of the secondary schools of France and argued that these schools were superior to the American high schools because the French boy began his distinctively secondary school studies when he was about ten years of age, continued these studies over a longer consecutive period of time than did the American boy and was freed from much of the dreary nonfunctioning work of elementary arithmetic and other formal studies in the grades below the secondary school. Doctor Eliot did not wish to lower standards of attainment or to make the work of the high school serve merely as a disciplinary preparation for college. What he sought was an enrichment of the curriculum content and an economical procedure in pursuing it. "The better the program is in itself," said he, "the better will it be as a preparation for further study."

There was in Doctor Eliot's address no mention of a six-year high school. Nevertheless the views

expressed by him at that time mark the beginning of a concerted cooperative effort on the part of school men to bring about a rather complete reorganization of public education, particularly in the realm of the secondary school. It is true that six-year secondary schools, patterned somewhat on the models of the European schools, had already existed in the United States for many years. These schools, however, were either the somewhat exclusive Latin schools or were institutions under private or denominational control. The common public high school was of the four-year type, resting on the foundation of an elementary school consisting of seven, eight or nine years and offering little but the so-called tool subjects.

As a result of the discussion that grew out of Doctor Eliot's address, four years later, in 1892, the famous Committee of Ten was appointed. This committee, headed by President Eliot, was charged with the duty of organizing conferences to consider the proper limits, the methods of instruction, the most desirable time allotment and the best methods of testing pupils' attainments "in each principal subject which enters into the programs of secondary schools in the United States and into the requirements for admission to college."

Favorable Signs for a Six-Year High School

This Committee of Ten made its report in 1893, a report that has been called "the most important educational document ever issued in the United States."¹ It is still worthy of careful perusal by all educators to-day. However, for the purpose of the particular theme of the hour the most significant portions of the report are those that relate to the time and place allotments of subjects of study. Every single one of the nine conferences into which the committee membership was organized went on record in favor of having the elements of each of the eighteen or more principal high school subjects taught earlier in the course than they were then being taught. Like-

*Paper given at the annual meeting of the Department of Superintendence, National Education Association, Cleveland, February 24-28, 1929.

¹ N. A. Calkins in Prefatory Note, revised edition, 1893, p. 17.

wise, the central reviewing and articulating committee definitely subscribed to the principle of having this work offered in the elementary grades as "perspective views or broad surveys" of the several fields of study.

Specifically, the committee voted to include in such preliminary surveys the subjects of algebra, geometry, nature study, botany, zoology, general history and physical geography, while the foreign language groups went even further in their requests and urged that their subjects be begun in a systematic way from three to five years earlier than was then the common practice. Despite these favorable signs, no mention of a six-year high school had been made as yet. Two years later, in 1895, a second great committee of the National Education Association made its report. This committee, familiarly known as the Committee of Fifteen, was headed by William H. Maxwell, superintendent of schools, New York City. It sought, among other things, "to investigate the organization of school systems" and to this end formulated a set of questions to be submitted to leading school men and educators throughout the country. Question No. 1 of Division II read: "Should the elementary course be eight years and the secondary course four years as at present? Or, should the elementary course be six years and the secondary course six years?" Here, then, is found the first clear expression relating directly to a six-year high school. However, the question propounded brought few replies favorable to the suggested reform. The public was as yet conservative.

The Birth of the Junior High School

Nevertheless, the idea of reorganization would not down. New committees were appointed to study the problem and discussions went on. In 1899, a committee of the Department of Secondary Education reported that "In our opinion, it is important that the last two grades that now precede the high school course should be incorporated in it."¹ Likewise, the Commission of Twenty-One, appointed in 1903, the Committee on the Advisability of the Six-Year Plan, appointed in 1905, and the Committee on Cultural Elements and Economy of Time in Education, appointed in 1907, all lent their support to the six-year plan. Then it was that the junior high school idea was born. This plan contemplated a reform within the reform. Instead of a single six-year secondary school, the new movement proposed that the suggested organization be broken at the middle. Grades seven, eight and nine thus would constitute the lower or junior high school and grades ten, eleven and twelve

would constitute the upper or senior high school. Especially was it claimed that pedagogical considerations called for the inauguration of the newer form of organization and that numerous recently discovered facts of biology, sociology and psychology justified the undertaking.

Soon staunch advocates rallied to the support of the younger movement. In particular, two powerful associations shortly put themselves behind its proposals—the North Central Association of Colleges and Secondary Schools and the Commission on the Reorganization of Secondary Schools. In the former group the new idea was sponsored, among others, by Prof. Charles H. Judd, University of Chicago. In the latter group it was sponsored by Clarence D. Kingsley, noted educational engineer and school consultant, and his colleagues. While not necessarily inimical one to the other, the two schools of thought have energetically pushed their respective claims for recognition, with the result that to-day there is an honest doubt on the part of many persons as to the superior merits of the two parallel plans of school organizations.

Reorganized Schools Increasing in Number

Thus it appears that the movement for a reorganization of public secondary education has been going on in a concerted way for more than a third of a century. The agitation has given us the junior high school in all of its various forms, the three year senior high school, the six-year consolidated school, the junior college and various other types of organization. Indeed, in a recent bulletin issued by the U. S. Office of Education—Bulletin, 1927, No. 26—E. E. Windes declares that "... at least thirty-nine types of organization of secondary schools by years are found in the United States to-day."

Despite the long period of discussion and experimentation, however, the old type four-year high school, including the ninth, tenth, eleventh and twelfth grades, or, in the South, the eighth, ninth, tenth and eleventh grades, greatly outnumbered all other forms. In 1926, a total of 21,700 high schools was reported by the Office of Education—Bulletin, 1927, No. 23, p. 13. Of this number, 2,367 were organized either as segregated junior high schools or as five or six-year consolidated schools—Bulletin, 1927, No. 26, p. 13—there being 879 of the former and 1,488 of the latter. That is, of all the public secondary schools in America to-day, 89 per cent are on the old four-year basis, 4 per cent are organized as junior high schools and 7 per cent are organized as five-year or six-year high schools.

Nevertheless, despite the preponderance of four-

¹ Report of the Committee on College Entrance Requirements, p. 23.

year schools, the other two types of organization are increasing in number. Indiana, for example, now boasts 258 reorganized schools, "almost one-half of the rural commissioned high schools in the state having adopted the 6-6 plan of organization."¹ Michigan has 122 six-year high schools, while the North Central Association of Colleges and Secondary Schools reported 180 six-year high schools accredited by that association in 1928. Likewise these same authorities reported in 1927 junior high schools as follows: Indiana, 40; Michigan, 47; the North Central Association, 410.

The question at issue to-day is: Which type of organization is better—the one that segregates the seventh, eighth and ninth grades by themselves and the tenth, eleventh and twelfth grades by themselves or the one that consolidates all six of these grades in one undivided unit?

In order to secure factual data upon which to base judgments in answering this question, a form letter was sent to 150 schools reported as organized on a five-year or six-year basis. The same letter was sent to twenty-five educators not directly connected with the public schools but known to have made careful studies of existing conditions. The schools were distributed over the twenty states belonging to the North Central Association of Colleges and Secondary Schools and included the small, the intermediate and the large systems. The individuals consulted lived in various parts of the United States. Exactly 100 replies were received, eighty-nine from authorities in secondary school systems and eleven from educators having primarily a theoretic interest in the problem.

Those Who Received Questionnaires

In order to secure somewhat homogeneous classifications, the returns to the questionnaire were grouped into four sets as follows:

1. Those from cities having a population of 100,000 or more. There were sixteen of these, including Detroit, Cleveland, Cincinnati, Grand Rapids and towns of similar size.

2. Those from cities having a population ranging from 10,000 to 100,000. There were twenty-two of these. Here were found such towns as Lima, Ohio, Madison, Wis., Okmulgee, Okla., Galesburg, Ill., Atchison, Kan., and Mt. Clemens, Mich.

3. Those from cities, towns and districts having a population of less than 10,000. There were fifty-one of these, eleven ranging from 5,000 to 10,000 in population and forty having a population of less than 5,000.

4. Those from educators not at present di-

rectly connected with secondary schools. These numbered eleven.

The average pupil enrollment in the schools of the first class was in excess of 2,000, that of the second class, approximately 1,100 and that of the third class, about 350. Further, the cities in the first class had tried the experiment of a six-year school for an average period of eight years each, those of the second class, for an average period of seven years each and those of the third class for an average period of six years each.

What Supporters of the Plan Say

Summarizing the returns from the questionnaire it may be said that, generally speaking, the large city systems are unfriendly to the six-year high school, preferring instead the segregated junior high school and the segregated senior high school. The small towns and semirural districts are pleased with the six-year school and prefer it to the old 8-4 arrangement of grades they formerly had. These towns have rarely had any experience whatever with the segregated junior and segregated senior high school plan. The middle sized cities and towns come near to striking a balance between the proponents and opponents of the six-year idea, the judgments often being determined not so much by pedagogical reasoning as by practical economic and social conditions found to be operating in the community.

In analyzing the returned questionnaires it was found that twenty-three points were offered in favor of the six-year plan and thirteen points were offered in opposition to it, all by individuals immediately connected with the schools.

The twenty-three points offered in support of the six-year plan are as follows:

There is a saving in expense in buildings, equipment and general administration.

An enriched program of studies is possible for small schools.

The curriculum is integrated, sequential and continuous for a longer period of time.

Better trained teachers are obtainable, particularly for the lower division.

It makes possible many extra-curricular organizations not otherwise feasible for small systems.

It provides for a better supervision of work.

It permits a departmental organization of subjects, try-out courses and promotion by subjects where otherwise these would be impossible or at least difficult to furnish.

It gives the advantages of the usually superior high school plant to the seventh and eighth grades.

It makes it easier to maintain high standards for teachers and a single salary schedule.

¹ Shannon, J. K., *An Unexplained Opportunity in the Six-Year High School*, *School Review*, 36:10, December, 1928, p. 745.

It makes it easier to employ men teachers, especially for grades seven and eight.

It centers responsibility for progress.

It has a stabilizing influence on younger pupils by older ones and *vice versa*.

It makes possible the hiring of a better trained principal than would be the case if two were to be employed.

It promotes school spirit and morale.

It bridges the gap between the elementary school work and secondary school work and hence holds more pupils in school.

It stimulates local interest in the schools.

It provides better laboratory and library facilities for all.

It permits a more equitable distribution of the teaching loads.

It better prepares the pupils for advanced secondary school work.

It puts pupils on their own initiative and enables them to make decisions for themselves at an earlier age than was formerly the case.

It permits the carrying out of a more effective guidance program for pupils.

It develops a more cordial sympathetic cooperative spirit among teachers.

It permits the grouping of pupils homogeneously, with adequate numbers to do this.

Arguments Offered by Opponents of the Plan

The thirteen points offered in opposition to the plan are as follows:

The range of ages and, hence, of interests among the pupils is so great that suitable provisions and treatments for all are difficult.

The junior high school division loses its identity. The public thinks of the school as distinctly a senior high school.

The senior high school organizations—dramat-

ics, athletics, musicals and social activities—overshadow those of the junior high school division.

There is an unfortunate aping of the manners and attitudes of the older pupils by the younger ones.

Teachers selected for their mastery of specialized subject matter fields are often ineffective with pupils of the lower division and dislike to teach such pupils.

Teachers of the lower division frequently feel that they are regarded as inferiors.

Range of Items Is Extended

There is little opportunity given junior high school pupils to develop qualities of leadership.

The pupils of the lower division do not get the supervision and the individual attention they need.

Blanks for colleges, for the North Central Association of Colleges and Secondary Schools and for the state department are based on the four-year school or on a three-year organization. It is necessary, therefore, to break up the organization into a hypothetical organization in order to meet the requirements. This often does not give the actual facts.

The large plant with hourly changes of teachers and rooms is confusing to pupils of the lower division.

Pupils have difficulty in "finding" themselves. When they have five or six teachers no one teacher feels more responsible for the pupils than another.

The longer class periods and the longer daily sessions are hard for some pupils.

The costs are greater than those under the 8-4 plan.

If it were possible to look into this list of advantages and disadvantages more closely, one

HOW EDUCATORS REGARD THE SIX-YEAR PLAN

Administrators

	<i>From large cities</i>	<i>From medium sized cities</i>	<i>From small towns</i>	<i>Total</i>
Favoring	7	12	41	60
Not favoring . . .	9	4	9	22
Not answering . .	0	6	1	7

Teachers

Favoring	5	12	27	44
Not favoring . . .	8	6	13	27
Not answering . .	3	4	11	18

Superintendents and Principals

Favoring	6	13	40	59
Not favoring . . .	10	5	7	22
Not answering . .	0	4	4	8

would discover that, although the range of items is fairly extended, those that are prominent in each division are relatively few in number. Thus, 38 of the 89 questionnaires mention economy in buildings, equipment and cost of administration as one of the advantages of the six-year school; 31 of the 89 say it holds more pupils in school; 30 of the 89 declare better teachers are securable, especially for grades seven and eight; 26 of the 89 say the work is better fitted to adolescents; 16 mention the enriched curriculum; 10 call attention to the fact that a longer continuity of study in certain subjects is permitted. The other answers trail off from this point.

On the other hand, the one greatest cause of dissatisfaction with the six-year school is the wide range of ages and interests of the pupils concerned. Forty-eight of the 89 individuals replying to the questionnaire mention this fact. Twenty think that the disparity of ages is unfortunate for the manners, attitudes and habits of all groups; 12 declare it is difficult to secure teachers suited to the tasks; 10 mention administrative and disciplinary difficulties; 10 feel that the education, guidance and supervision given the younger pupils are all faulty.

To secure categorical answers to categorical questions the following three queries were expressly asked in the questionnaire: Do your administrative officers in general favor the six-year plan? Do your teachers in general favor the six-year plan? Do you personally favor the six-year plan?

The answers to these queries are tabulated in the accompanying table.

Administrators Are Divided on the Subject

Certain explanatory remarks that accompanied these votes are interesting. Several that concern administrators' views are quoted here:

"Our administrators favor the six-year plan because of crowded conditions in the system generally and for financial reasons."

"The six-year school makes a better showing to the board, satisfies parents who wish to keep their children near home and reduces the cost of instruction."

"The six-year school is the best we can do at present but we are strong for the 3-3 plan."

"We accept it. With our present income and plant it is the best for us."

"We have an industrial town with a great demand for vocational work. Shop work is given better in a six-year high school."

"Our administrators do not favor the six-year plan. Pupils of the junior high school are too young to be in daily contact with older pupils.

They attempt to ape the older pupils, become sophisticated, blasé and conceited and acquire an air of finality that is unwholesome for them and the school."

"The junior high school pupil needs a different discipline, shorter study periods and a special kind of individual attention. These are difficult to be had in a six-year school."

What the Teachers Think of the Plan

How the teachers regard the plan is shown by the following remarks:

"Our teachers favor the plan because teaching conditions are better."

"Our teachers like the bigness of the plan."

"Our teachers have never known any other system."

"Our teachers like the continuity of work permitted by the six-year school."

"Our teachers favor the plan because it has produced an augmented salary schedule for them."

"Usually our teachers teach the subjects in which they have specialized. Hence, they enjoy the system."

"Our teachers are divided in sentiment. Teachers who teach only in the seventh and eighth grades feel that they are inferior. Those working in the senior division do not know how to sympathize and handle seventh and eighth grades."

Remarks that reflect the personal views of the various correspondents are also quoted:

"I favor the plan because it gives us a good ninth grade and also brings our teachers down to the pupil levels."

"I like the plan. Our student group is too small for two separate organizations."

"I like the plan. As an educational proposition it is complete."

"I do not want to go back to the 8-4 plan and, since it is locally impossible to get the 6-3-3 plan, I am content."

"For a school of our size I vote 'Yes.' If we were larger I should vote 'No.'"

"The advantages outweigh the disadvantages."

"I disapprove the plan. It is an adaptation only."

"Our school was changed from a six-year school to a 3-3 school on January 1, 1928, and an improvement in tone was apparent at once."

Perhaps no better way can be found for getting a picture of the six-year high schools as they are actually operating than by presenting here personal views of several representative men who are working in them.

P. E. Hemstead, superintendent of schools, Kingwood, W. Va.:

"As I see the matter, the increased length of

time that pupils may be held in school, the decrease in retardation in the seventh and eighth grades, the early acclimatization of the younger pupils to high school life and spirit and the access to better libraries and laboratory equipment, with better trained teachers, justify this kind of an organization in small communities."

Superintendent of Schools, North Manchester, Ind.:

"The advantages of the 6-6 plan are greater than the disadvantages, especially when we consider the size of the school, the housing conditions, the money available for school purposes and the general equipment with which we have to work. The question of discipline is increased and made more difficult, due to the very nature of the pupils concerned, their ages, the arrangement of the extra-curricular program, the use of the study hall, the toilets, the corridors, the playground and the assembly period. But the pupils are benefited mentally by having a superior quality of teaching made possible by having more expert teachers in the various departments of the school subjects. The teachers are teaching the subjects they like best and have the greatest training for. I believe we can better care for the inevitable individual differences through the 6-6 plan than through the old 8-4 plan that we used here several years ago."

G. D. Caldwell, principal of the high school, Neodesha, Kan.:

"Our program of studies and our schedule are so arranged that most of our teachers have classes in the first three years as well as in the last three years. To satisfy North Central Association requirements, all of these teachers must, of course, have degrees. This, therefore, gives us better trained teachers in the first three years than would be the case if we had a three-year organization. Further, since the six-year school has one administrative head, the schedule is better balanced than that allowed by the 3-3 plan."

B. C. Berg, superintendent of schools, Newton, Iowa:

"The big advantage of the six-year junior-senior high school is in the element of supervision. It is possible to organize your school by departments and provide an efficient supervisor as head of each department. If the school were divided it would mean two heads for each department. I would rather have one good head with a good salary than two poor ones with poor salaries."

F. P. Whitney, principal, Collingwood Six-Year High School, Cleveland:

"The six-year school certainly offers a rare opportunity to effect continuity in curriculum building, thus making it possible not only to bridge

but to eliminate entirely the traditional gap between the upper and lower level. Keeping the child under one environment long enough to discover aptitudes and to direct tendencies, affords real guidance a chance. Given wise and sympathetic observation, unity and consistency of direction can surely be gained far more effectively under a single organization than under two.

"It has been demonstrated in music, for example, that the highest results depend upon sufficient exposure. What is true of music is probably just as true of other subjects. It is a question to be answered by actual experiment whether desirable attitudes can be as successfully engendered by a school experience of three years in each of two schools as by an experience of six years in one school. The six-year school asks a chance to show what it can do toward creating social-civic attitudes, for example, in comparison with schools with less opportunity for continuous impression.

"It must not be forgotten also that as things now stand the vast majority of those who drop out leave near the end of the junior high or the beginning of the senior high. Neither junior nor senior high separately is in a position to meet, in any adequate fashion, the needs of the group leaving school early. This is at present essentially a ninth and tenth year problem. It is a problem combining junior high school academic levels and senior high school vocational levels. Only in a six-year school is the situation adapted to the needs of this group."

T. R. Rogers, superintendent of schools, Coopers-town, N. D.:

"I have previously used the six-year plan but do not favor it because seventh graders are not yet ready to take responsibility without some person in charge of them."

Principal of the High School, Two Rivers, Wis.:

"We have one of the few high schools in the state of Wisconsin that may strictly be called a six-year high school. Six years ago we entered a new high school building built for a thousand pupils. Our six-year organization is administered as a unit. Yet I advise against such an organization if the community can afford two separate departments. My present belief is that the ideal situation calls for two separate buildings, two separate courses of study, two separate teaching forces, two separate principals—in short, two separate identities. Each school should have a personality all of its own."

B. C. Hood, principal, Dearborn High School, Dearborn, Mich.:

"If I sense properly the meaning of the junior high school movement, it means more than a broad curriculum and departmental teaching. It

implies social training of a type peculiar to the adolescent exploration into and discovery of the pupil's capacities and interests and an understanding and appreciation of the new world into which the broadening interests of his developing mind are carrying him. I am convinced that these objectives cannot be realized in a six-year organization, due to (1) the wrong social environment and (2) the practical impossibility of developing a proper teaching situation under the circumstances. The crux of the whole situation is the teaching attitude. The traditional aims of secondary education are so opposed to the junior high school ideal that the latter can neither develop nor grow in the same organization."

C. R. Bradshaw, principal, Lincoln School, Fernald, Mich.:

"In my opinion the best results educationally and socially are attained when the six-year secondary period is divided so that the junior and senior high schools are administered as separate units. In the medium sized communities this is generally prohibitive from the standpoint of costs. Summing up, therefore, my advice is: Separate if you can; combine if you must."

E. E. Fell, superintendent of schools, Holland, Mich.:

"Our junior-senior high school is somewhat unique. We have two buildings on the same block. One is occupied by the seventh, eighth and ninth grades; the other, by grades ten, eleven and twelve. Each building has its own student organization, but the gymnasiums, the shops and the fine arts and music rooms are used in common. The teachers in these subjects have pupils from the seventh grade to the twelfth. The same is true to a less degree of some academic subjects. The advantages are better teachers, better equipment, greater economy. I know of no disadvantages."

What College Leaders Think

How is the plan regarded in higher education circles? In this connection it may be well to quote the views of a few representative leaders in colleges.

Prof. F. C. Landsittel, Ohio State University, writes: "In the larger centers, the segregated junior high school seems to me to have definitely justified itself. The school population it serves represents a group sufficiently differentiated to call for an institution organized along lines that the junior high school represents. While it is true that variations as regards pubescent development spread markedly beyond the three-year period, it appears to be still true that there is a sufficiently general or common set of conditions to mark off

the period. The problem of adaptation of subject matter and school training generally call for the differentiated type of institution of the junior high school. However I do not regard it as necessarily fatal to the interests of the pupils affected if they should be served by a school of the six-year type. Hence, in the smaller centers practical reasons would seem to me to outweigh theoretical ones, thus justifying this latter form or organization. The program, however, covering the earlier years should be essentially the same."

Prof. J. D. Elliff, inspector of high schools, University of Missouri, says: "It is my opinion that the 6-6 plan should not be followed in any school system where there is a sufficient number of pupils to organize the school on the 6-3-3 basis. The disadvantages of the 6-6 plan grow out of the fact that there is a difference of six years in the ages of the pupils. It seems to me to be perfectly clear that this difference in age alone would indicate the necessity of a somewhat different social, civic and recreational program."

Advantages and Disadvantages Are Listed

President E. E. Rall, North Central College, Naperville, Ill., writes: "From observation and study I should say that I believe the six-year secondary school organized as a unit is preferable to the 3-3 plan, because it allows better for the necessary integration and unification in the education of the child, because it allows a better articulated curriculum with less duplication and marking time and because it should tend to hold pupils to the end of the high school. The separate junior high school may encourage dropping out."

Prof. A. W. Clevenger, high school visitor, University of Illinois, writes: "I feel strongly in favor of the six-year high school in cities or school districts where the population is not in excess of 15,000." (More than half of the replies received to the questionnaire were from cities with populations of less than 15,000.)

The advantages of the six-year system are listed by Mr. Clevenger as follows: "It allows for greater specialization on the part of the teacher; it is more economical for fuel and for janitor service; it saves time for supervisors and it makes possible the employment of better qualified teachers and principals."

On the other hand, Mr. Clevenger lists the following disadvantages: "It means greater distances for pupils to go to school; it means greater cost for pupil transportation; it usually means additional cost in operation of the cafeteria since many more pupils will need to eat lunch at school; it raises problems relative to the mingling of very young pupils with the older pupils."

Prof. F. T. Spaulding, Harvard University, writes: "For the very small schools I think that the six-year organization has more advantages than disadvantages. For the large schools I am inclined to favor the separate junior and senior high school organization in cases where special factors in the local situation offer no peculiar argument for combination. The six-year combination tends, however, to produce undue domination of the junior high school by the senior high school."

Size Is an Important Consideration

Prof. H. H. Ryan, principal, Six-Year University High School, Ann Arbor, Mich., writes: "To me the question of three-year school *versus* six-year school is one of size of school. If there are enough pupils in the junior high school and senior high school to make it economical to run two separate complete plants, there is no question in my mind, but that the two schools should be separate. The advantages of the separate school are mostly bound up in the greater degree of homogeneity of school population, social problems, interests, instructional problems and so on. Any association that tends to make young children imitate the airs and practices of older children is a disadvantage."

"It is certainly true that if the senior high school is allowed to dominate the junior high school, the latter will run a small chance of living up to its responsibilities. It should be borne in mind that the functions of the junior high school have to do with the welfare of the pupils who compose it, not with the convenience of teachers who are to deal with them later. On the other hand it is often true that a better and more complete plant and better teachers can be provided by what is termed in rural school parlance 'consolidation.' That is the big argument for the six-year school for small communities."

Prof. Charles H. Judd, director, school of education, University of Chicago, has this to say: "Two arguments are urged in favor of the six-year high school. First, it is said that there should be continuity in the education of pupils. Second, it is said that unity of administration is advantageous. Such unity promotes economy and enlarges the facilities which are available."

"It must be admitted at once that where a community is small and the number of pupils who enter the grades above the sixth is limited to two or three hundred, the demands for economy in administration and equipment become the dominant considerations. If the cases that are cited as demonstrating the virtues of the six-year high school are examined carefully, it will be found that

they are, in general, cases where the school is small and the territory that it serves is isolated. On the other hand, where a large community is to be served, there are important administrative considerations that dictate the separation of the different levels of education from one another.

"Quite apart from the housing considerations, however, there is ample educational justification for separating pupils of different levels of maturity. The argument that education is continuous is an argument that flies directly in the face of psychological fact. Pupil development is not continuous in the sense that the successive stages of such development are alike. The infant has one kind of a mind and needs one kind of educational treatment. The high school pupil is at a wholly different stage of maturity and needs a type of treatment appropriate to his age."

"The junior high school period of life is a period of unique intellectual and social demands. Ninth grade pupils are more like pupils in the grades immediately preceding than they are like pupils in the upper years of the high school. In general, the treatment accorded to ninth grade pupils by high school faculties is not appropriate because this treatment assumes a degree of maturity that is not present. The greatest obstruction to the junior high school at the present time is the conservative attitude of high school faculties and their inability to understand and meet the special needs of ninth grades."

When to Combine and When to Separate

"The foregoing statements can be summarized in the statement that the divisions of the school will be dictated by the needs of human nature as soon as the school grows large enough and well enough equipped to carry on the educational program without being cramped by narrow administrative limitations. Human nature from twelve to fifteen years of age is different from human nature from fifteen to eighteen. Human nature calls for a junior high school that is different from the senior high school."

From the points of view presented here, it appears that there are arguments and experiences pro and con concerning the six-year high school. The weight of facts and opinions tends however, to support the conclusion that for the small school in sparsely settled districts the undifferentiated six-year high school is best suited but that in the larger cities and towns, with school populations of such size as to make the undertaking economically justifiable the differentiated junior and senior high schools are to be recommended. In other words, "Separate if you can; combine if you must."



Where Special Class and Normal Pupils Go to School Together

BY FRANK A. CHILDS,

CHILDS & SMITH, ARCHITECTS,

CHICAGO

Pearl School, Jackson, Mich., has been built with the idea of making it possible for special class children to profit by daily association with schoolmates normal in both mind and body

THE public school system of Jackson, Mich., a city of some 60,000, is organized with the kindergartens and the first six grades in the elementary schools, with grades seven, eight and nine in the intermediate schools, with grades ten, eleven and twelve in the high school and with two additional years in the junior college.

The elementary schools are not large enough to warrant organization on the X-Y-Z plan for children of varying degrees of mental ability. Similar or better results are secured by organizing special classes for types of children that require special consideration. These special classes are in centers that serve large sections of the city.

The Pearl School, completed and occupied last September, is an unusually complete elementary building, unique in having as many special classrooms as regular grade rooms. With a total of 900 pupils, it houses 50 in the "open air" rooms, 14 in the sight saving rooms, 16 in the department for the deaf, 20 in the orthopedic department, 55 in ungraded rooms, 48 in the auxiliary department and 72 in the opportunity class for gifted pupils. This leaves 625 normal students in grades from the kindergarten to the sixth grade inclusive.

Inasmuch as later on in life these special types of children must mingle with the world, it is believed that it is better for them to associate as much as possible with normal average children. The Pearl School, therefore, contains two regular kindergarten rooms and thirteen regular grade rooms. Children from special classes are sent to the regular grade rooms for part of their work, and they also mingle with the regular grade pupils on the playground, in the auditorium and in various other activities.

Each Child Is Given Special Care

The fifty pupils in the open air group are in charge of two classroom teachers and two matrons. The cases for admittance to this group are selected by the school physician. Children in the regular grades that show evidences of anemia or malnutrition or possibly chest trouble, or those having tuberculosis in the family, are considered eligible for admittance. No case that shows active tuberculosis is ever admitted. A system of careful inspection serves to exclude a child who may become an active tuberculous case after his admittance. After entering the open air group each child is sent to the Foote Memorial Hospital



Here are shown two ways in which children of the Pearl School attain normal physical development. The well lighted gymnasium, shown above, provides a place for physical instruction and play for normal as well as defective children. The play deck, shown below, is located on the roof.



for chest examination, and return appointments are made as needed.

Special attention is given to the correction of physical defects that may be largely responsible for the child's condition. Many children have shown considerable improvement after such defects have been corrected. Children are weighed once a month by a school nurse and the weight is recorded on the individual record cards and also on the weight charts in the classrooms. The pupils prize a gain in weight as much as they prize a gain in their various academic subjects.

ents. In this way, the work of the school is adjusted to individual capacities and needs.

The open air school gives the child the physical advantage and mental stimulus afforded by an adequate amount of fresh air and sunshine, and it has been found that the great majority more than hold their own in competition with those who have been doing work in the regular grades.

The fourteen pupils in the sight saving group are in charge of one teacher. The children in this group are suffering from some eye condition that makes it impossible for them to make prog-



Children who show evidence of anemia, malnutrition or chest trouble rest for an hour each day after lunch in the open air sleeping room.

The routine care includes shower baths from eight to nine o'clock three times a week under the supervision of the matrons, a breakfast—hot cereal and milk or sandwiches and milk—at ten o'clock and a well balanced noon meal. Here the children learn to eat some kinds of food they would not touch at the home table. The noon recess is followed by an hour's rest on the cots. For special cases that demand an unusual amount of rest, the rest period is extended beyond the usual one hour. The curriculum is the same as in the regular grades. The teachers make a direct effort to keep in close touch with the homes and to secure the hearty cooperation of the par-

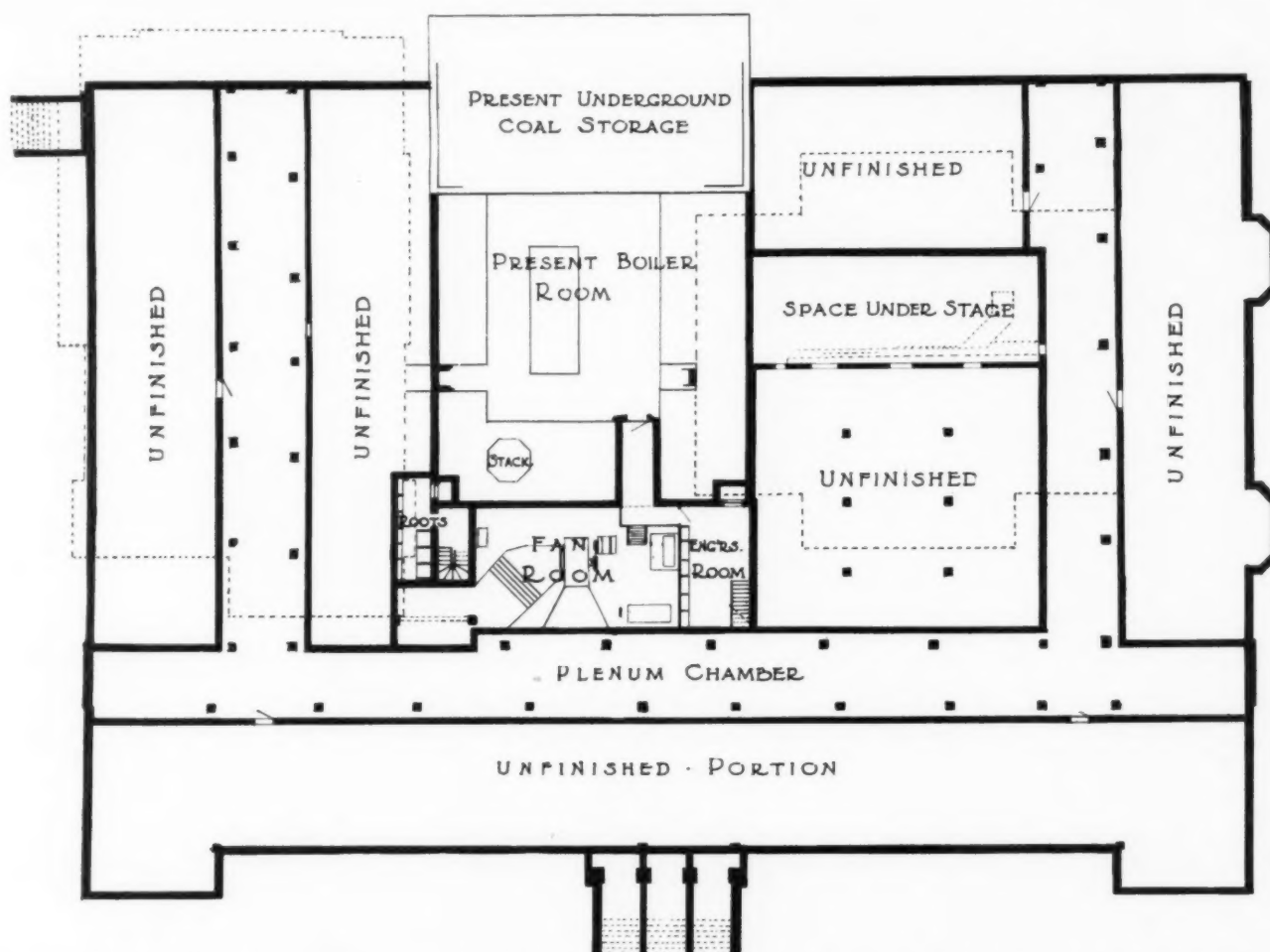
ress in the regular grades with the facilities that are provided for children with normal vision. With a specially trained teacher and with a schoolroom equipped for the work, they are given a fair chance to compete with the children in regular grades. Children are admitted to this class by the school physician following a recommendation by an oculist. The aim is to relieve eye strain so far as possible. To this end, the clear type books printed on manila paper are used in place of the regular print books. The writing paper is also the manila and has lines about an inch apart. The older children use the bulletin typewriter to prepare their lessons.

The walls, woodwork and furniture have a dull finish. Opaque glass instead of a clear reflecting glass is used in all the doors.

The preparation of work is directed and supervised by the sight saving teacher. Most of the children then go to the regular grades for their recitation periods. This prevents their losing social contact with the larger group. The marked improvement shown in the reports the children bring back from their oculists makes it possible now and then to return some to the regular grades for preparation and recitation periods.

Not only children with impaired vision, but

from six to twelve years. Lip reading is taught by the aid of a large mirror and by throat vibration. A great deal of shop work is taught here. The older boys go to the intermediate schools for advanced shop work, for printing and for gymnasium. One teacher cares for the speech defects of all pupils throughout the city. She has a class of twenty-five pupils twice a week in this building. The class period lasts for an hour and a half, each pupil receiving ten minutes of individual instruction. This work is carried on in the clinic room that was designed primarily for the use of the school physician and nurse.



The foundation plan shows the present heating plant and the ample space that can be converted into other basement rooms.

blind children as well, are admitted to this school. One blind boy, whose parents moved to Jackson when he was five years old especially to place him in this school, is now ready for the fifth grade. He uses the Braille books and has mastered the system to the point that he enjoys the library books in Braille as much as the child who sees enjoys the regular print books from the public library.

Two teachers care for the sixteen day pupils in the lower and advanced groups in the department for the deaf. The ages of these pupils range

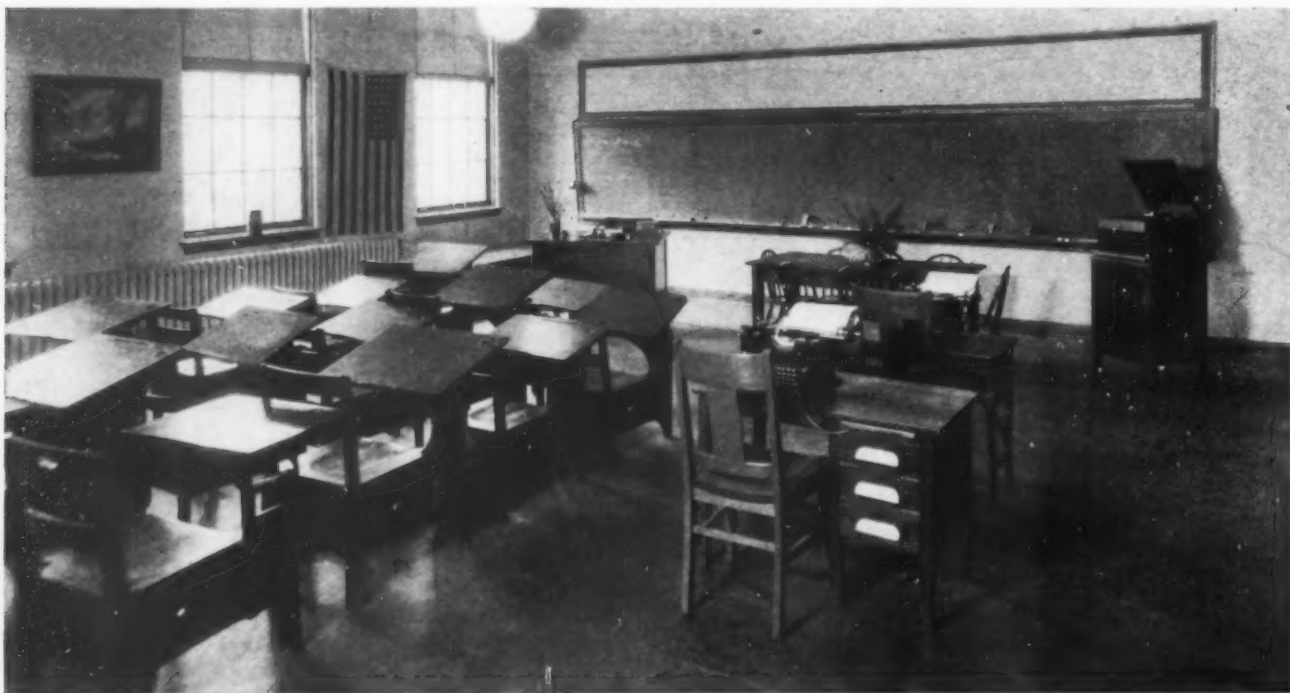
The orthopedic group is brought to the school by a taxicab at the rate of forty-five cents a trip for groups of two or more. One teacher is in charge and a trained nurse devotes three half days a week to exercises and massage for this group. Cases that need special examination and attention are sent to the University Hospital at Ann Arbor, thirty miles away. A trained physiotherapist is to be retained shortly to give quartz light and ultraviolet ray treatments. Parents cooperate in giving brine baths and massage which are checked by the surgeon and the nurse.



Provisions are made for the mingling of the normal and defective children even in the kindergarten.

Two rooms are devoted to this department, a classroom and a therapeutic room. A special grade level entrance, a special toilet and facilities for giving treatments are provided. Occupational therapy is stressed for this group. The pupils build playhouses, make shingles and construct model stores and villages. They are taken

to the gymnasium and play deck as well as to the auditorium for music plays and for other exercises. Even climbing stairs is a good exercise, and the swings out of doors are greatly enjoyed. This group naps one hour a day. A breakfast of milk and wafers is served at 10 o'clock, and luncheon at noon is taken with the rest of the pupils.



The sight saving room is for the use of children with defective vision with the aim of relieving eye strain as much as possible. The walls, woodwork and furniture have a dull finish, and opaque glass is used in the windows.

The equipment in this department includes a triple mirror, six rubber balls, dumb-bells, a punching bag, stall bars and a bench, floor mats, a climbing rope and a ladder, an easel for blackboards and a typewriter.

How Paralytic Children Are Taught

The pupils range in age from five to nineteen years. They are mostly spastic cases, with some infantile paralysis. The pupils are often irrita-

cises. Handwork is stressed for both boys and girls. These pupils are taught to read but because of their poor comprehension they do not get beyond the fifth grade. They range in age from six to fourteen years. When they are fifteen years of age, they are automatically sent to the vocational school. They mingle with other pupils on the playground, in the auditorium and in the gymnasium. Three teachers conduct three groups with a total of fifty-four pupils. Two boys from



In the well equipped library will be found books printed in Braille type for the blind children who attend the school.

ble and stubborn, but with proper mental suggestions they yield to firm and tactful discipline. Many are spoiled at home, have tantrums and are self-conscious with the other children. The end of the school year, however, usually sees a great change in the behavior of these pupils.

The special pupils are divided into three groups. The ungraded or lowest group of mental defectives is assigned five rooms, two for academic work and three for shop and handwork, cooking, sewing and similar activities. Folding doors make it possible to convert two of these rooms into one large room for auditorium exer-

this group were in the relay team races at the high school stadium. Participation in activities of this nature is urged whenever it is believed that the children will benefit thereby.

Backward Children Receive Care

The auxiliary group is that between this lowest group of mental defectives and normal children. Pupils in this group are backward in school progress but they are not low grade defectives. One room is assigned for the first three grades and one for the fourth, fifth and sixth grades. This group is more like a normal group. There



The teaching of handwork is considered important for the pupils with orthopedic defects.

are twenty-four pupils in each class. A special shop is provided. At the age of fifteen they are transferred to the vocational school as an ungraded group.

Gifted children form the third and last group, for which an enriched curriculum has been planned. Two rooms are set aside, one for third and fourth-grade pupils and one for fifth and sixth-grade pupils. There are seventy-two pupils in this group. French is given twice a week, in addition to club and drama work and parliamentary drill. Trips are made to the state capitol at Lansing and to the Battle Creek food factories.

The general features of the building include a principal's office and a waiting room, a teachers' rest room with kitchenette, toilets on each floor, a library, an auditorium that seats 500 persons, a gymnasium, a roof playground and a general shop and an activities room for the boys and girls in the upper grades. For the lower grade pupils, there are half a dozen small shops, each one being placed between two classrooms.

Building Is Well Equipped

The school is a two-story, brick, fire resistive structure. The floors in the classrooms and corridors are covered with linoleum. Wood or terrazzo floors are used elsewhere in the building. The school is equipped throughout with a wealth of cases and cabinets, with telephones, with clocks and signals in all rooms, with built-in lockers in the corridors for all pupils and with drinking

fountains conveniently placed on both floors. The cost of the building, including architects' fees, was \$269,400. To this must be added \$20,600 for a heating plant that was already on the ground. The total cost of the building, therefore, was \$290,000, exclusive of the educational equipment. The building was designed for 900 pupils.

Physical Defects Decrease as Intelligence Increases

Physical defects are found to be fewer and less serious among children of high intelligence than among those of low intelligence, according to a review prepared by the Public Health Service, after a physical and mental examination of school children in two counties of Illinois.

Foremost in the intelligence findings was that the child is doubtless affected by factors of race, color, nativity, language used in the home, occupation of the father, age and the place of residence.

The prevalence of physical defects among children of low intelligence quotient was compared with that among children of average and high intelligence quotient. The average number of physical defects decreases as the intelligence quotient increases. This tendency seems to be independent of race, language and other similar factors.

Relating the Teaching of English to Reality

Teachers of English should be educated to take a scientific view of language and should be brought into contact with recent linguistic study and the best contemporary work in education

BY PROF. STERLING A. LEONARD, UNIVERSITY OF WISCONSIN

THE superintendent or other administrative officer who feels that all is not well with the work in English in his system probably has reason for his doubt. For more than one hundred and fifty years our grammars and the entire force of English teachers have been earnestly at work trying to eradicate the form "you was." Yet among grade school and even high school graduates, it is without doubt the form used by the majority of people. College graduates do not use it so much, but that may be because they come from homes where such a form of expression is not used.

English Courses Should Be Revised

This is evidence that leads us to question whether our English teaching has actually produced the results we want. William L. Connors of the Cleveland Schools Research Bureau has more particular and disquieting evidence. He gave the same English tests to 1,000 seventh grade pupils, 600 tenth grade pupils and 400 high school seniors. The resulting scores showed increased proficiency, grade by grade, in each test. But Mr. Connors was not satisfied. He dug under these nice looking scores and what he found was startling. The 400 best seventh grade pupils did as well on every test as the 400 high school seniors. In other words, six years of English teaching in high school had effectually eliminated the nonacademic pupils, 60 per cent of them, and it had not done the rest any harm.

This confirms what Doctor Buckingham was rather harshly criticized for suggesting a few years ago—that the rise in average intelligence quotient from grade to grade about parallels the rise in achievement on most standard tests.

A cause of more painful doubt is to be found in the Army Test returns. As Doctor Gray has pointed out in Part I of the twenty-fourth Year-Book of the National Education Association, the most damaging discovery of those tests was not the number of people who could not read, though that was bad enough, but the number of people

who could read and never did. Just as significant was the number who were able to write but who were so shy of writing materials that it was next to impossible for them to carry on even the correspondence with their relatives and friends that the terrible days of the war made urgent.

The work in English is probably no worse than the work in other school subjects. English teachers are earnest, conscientious and willing, perhaps more willing than most of their colleagues, to face the enormous and complex difficulty of their subject and to discover better ways of presenting it. There is no need to view the situation with melancholy. All that is needed is courageous leadership in throwing off the burden of impossible and futile parts of our courses of study and teachers of English are already awake to the needs of the situation. The bibliography at the end of this article suggests about all that the administrator and the curriculum committee of the school system need to know in order completely to revise courses of study and procedures for more effectual work.

Research Is Being Undertaken

Dr. R. L. Lyman's summary of investigations in composition, like Gray's in reading, for example, offers valuable material on what is necessary for the course-maker and the teacher. Such books as Piaget's "Language and Thought of the Child," though not light and easy reading, offer a basis for understanding what language is, where children are when we begin to teach it to them and what modern psychology has to tell us about carrying them from there to where we want them.

Last Spring, at the instance of the National Council of Teachers of English, I visited many universities and city and state research centers, from Cambridge, Mass., to Los Angeles. This journey made apparent to me that there is tremendous interest and activity in research bearing upon and affecting the teaching of English. A valuable study of individual instruction in Eng-

lish by Doctor Stevens, since published by the Harvard University Press, and another on the course of study in literature, conducted at Stanford University by Dr. Mary C. Burch and since published by the Clark University Press, were even then completed in manuscript. In the places that I happened to touch or to be in correspondence with, not less than fifty courses of study were undergoing thorough revision. The situation is live and hopeful and the necessary materials for its intelligent revision are at hand.

The main difficulty, however, lies in the fact that in too many cases these materials are not being utilized. The principal impression of the trip was that although the traditional breach between schools of education and schools of English is being rapidly bridged, pitifully little commerce is being carried on between the two regions.

It is obvious that the educational psychologists can make as important contributions to the teaching of English as to any other subject. Nevertheless courses and developments of procedure are still going on without heed to these important contributions. While the lack of alliance is greatest in the high school and the college, where of course the alliance might be closest, it affects in a measure all teaching of English.

Textbooks Are at Fault

Still more is it true that the important matters well known to students of the English language have not yet been made effectually known to those responsible for building courses of study and for teaching children. The teaching of English, from the kindergarten through the university, is still dominated to an astonishing degree by misconceptions about the English language which have been inherited chiefly from the eighteenth century grammarians. It is startling to most teachers to discover, for example, such obvious facts about the language they teach and use as that words are not spoken separately but in breath groups or phrases and that in these phrases unaccented syllables have not the conventional vowel values but a blurred and neutral vowel something like "uh." Textbooks are dominated by misinformation about "correct English," and tests repeat their errors. As an inevitable result, every day many teachers perpetrate more absurdities about English usage and pronunciation than a trained linguist could undo in a week.

This is not the fault of teachers or even of those who taught them but goes back to the indefensibly cloistered way in which scholars in universities have lived, fearful of the contamination of useful and practical reality. Only in the last twenty-five years, under the leadership of such

men as G. P. Krapp at Columbia, the late Thomas Lounsbury at Yale and Prof. C. C. Fries at the University of Michigan, has a beginning been made to inform teachers regarding elementary facts relating to language.

Incorrect Forms Now Accepted

A hopeful result of this change in attitude is to be found in the report of the National English Council committee on courses in the English language for teachers. Reprints of this report should be in the hands of all superintendents who wish to advise their teachers about summer school courses or other college work. The teacher who has been through such a simple but awakening course in the history of the English language as this committee outlines will be removed from the temptation to force upon pupils in English classes such absurd and unnatural forms as "shall you," "it was I that came," and "try to do it." Of course, anybody who likes to do so has a right to use these phrases; but in doing so he should realize that they are more formal and pedantic than the normal equivalents and that to tell pupils these forms alone are correct is indefensible.

In a recent study, out of 100 forms commonly condemned in textbooks and courses of study still in use, forty-five were rated by a jury of the most eminent philologists in the world as good cultivated English for use on informal occasions.¹ The accompanying list shows the forms in part:

None of them *are* here.

This was the *reason why* he went home.

That will be *all right*, you may be sure.

We will *try and* get it.

I felt I could walk no *further*.

I've absolutely *got* to go.

There are some *nice* people here.

The members of that family often laughed at *each other*.

Will you be at the Brown's this evening?

The room is *awfully* cold.

We *only* had one left.

Who are you looking for?

We can expect the commission *to at least protect* our interests.

That's a dangerous curve; you'd better go *slow*.

It is *me*.

You had to have property to vote.

A treaty was concluded *between* the four powers.

I have *got* my own opinion on that.

My contention has been *proven* many times.

One rarely likes to do as *he* is told.

¹ For report of this study see Leonard, S. A., and Moffett, H. Y., Current Definitions of Levels in English Usage, *English Jour.*, vol. 16, May, 1927.

There *was* a bed, a dresser, and two chairs in the room.

Drive *slow* down that hill.

I will go *providing* you keep quiet.

Can I be excused from this class?

What was the reason for *Bennett* making that disturbance?

Haven't you *got through* yet?

He never works *evenings* or *Sundays*.

They invited my friends and *myself*.

Everyone was here, but *they* all went home early.

He went *right* home and told his father.

That clock must be *fixed*.

The Rock Island *depot* burned down last night.

My *folks* sent me a check.

I *guess* I'll go to lunch.

I *can't seem* to get this problem right.

Whoever objects to any one of these expressions is of course entitled not to use it, but there is no reason why he should forbid anyone else to use it. Moreover, the whole failure of our attempt to eradicate really illiterate forms such as "you was" is closely bound up with this. The pupil who is condemned for the use of idioms that are accepted by cultivated people naturally concludes that the teacher knows nothing about the matter and must be equally mistaken in his objection to "I seen" and "you was." Hence, all the teacher's words of wisdom are without effect.

Correct Forms Should Be Mastered

But if we concentrate resolutely on a few essentials, organize our courses to secure their mastery and apply to this end the laws of habit as they are freely explained in schools of education, genuine results may be hoped for. In a study of the social utility of language forms by C. H. Matravers, it was found that teaching pupils to avoid the following ungrammatical expressions would eliminate over 80 per cent of the total number of possibilities for error discovered in more than 100,000 words of high school pupils' conversation reported in a stenographic transcript. It is clear that these forms are worth attacking and concentrating upon. At present we scatter attention on 1,581 different matters and get nowhere. The incorrect expressions are: ain't for isn't, aren't, hasn't, haven't; haven't no; them books; you was; leave go; come yesterday; seen it; play good; can't neither; there is or was several; isn't nothing; had ought; we was; give it (preterit); wish I would have or if I would have; set down; hair are; done it; have saw.

The mastery of correct forms in place of these ungrammatical forms might leave some time in the busy day for more important instruction. For

example, most of us who have learned to explain things clearly learned this not in composition classes but in the painful process of trial and error in actual attempts, generally outside of school or after we began teaching. What we know about effectual argument, good letter writing and the telling of simple stories, we have in general learned in the same way, without much help from school courses. Yet if composition courses do not lead to conscious growth and mastery of such simple skills, it is surely pertinent to ask what they do accomplish.

Effect on Listener Not Considered

It is a curious fact that the hearer or reader is given practically no consideration in most rhetoric and composition texts to-day. But in the "Rhetoric" of Aristotle the entire second book, almost one-third of the whole, was devoted to finding out what the audience knew and believed, what were their passions and prejudices. Conscious attention to this sort of problem has obvious value for pupils, by helping them to be both members of audiences and more effective speakers and writers.

In this matter, it is clear, I think, that improvement has been made in recent years, but a much greater change in the attitude of both teacher and pupils toward composition is necessary before we shall get composition teaching that is really effective. Our work must be pointed directly toward help in organizing ideas and in developing effective communication, both of which are now remote from the procedures in formal and conventional classes in English.

The reading of Professor Piaget's book, previously mentioned, should be a fundamental requirement of all who are concerned with the building and administration of courses in composition. It makes clear how useless most of our attention to form and convention in these matters has been. It stresses the fact that the talk of small children is not even predominantly communication but is, like the speech of too many adults, merely "collective monologue," often intensely uninteresting to hearers since it has no relation to their thoughts, interests or wishes. This is right and natural for little children, but it is a startling revelation that the speech of too many adults is little different in character. That this situation has not been recognized and remedied is perhaps the most fundamental criticism of our current teaching of English.

What is the superintendent or principal to do in order to bring about a thorough reorganization of the teaching of English on the basis of the important studies now available? We have

plenty of evidence that there is tremendous interest in this problem. Too often curriculum committees have been concerned with an elaborate listing of objectives and with attempts to rank these.

The whole problem has to be approached by educating teachers to take a scientific view of language and by giving them a clear conception of the purpose of their subject—such common sense but significant and even revolutionary notions as were presented years ago in Dewey's "School and Society." In particular, teachers who are to do the work of curriculum reconstruction must be encouraged to secure in university classes the equivalent of the preparation in English language suggested by the National English Council committee already referred to. They should also attend modern courses in the teaching of their subject and should learn to examine critically the conventional assumptions in the light of current psychology and social theory.

The supervisor can adequately judge the work in a composition class by its reality as communication. When speaking and writing are going on for genuine purposes and are being evaluated by teacher and class for their clarity and interest, essential matters of technique will be judged according to the contribution they make to the purpose in hand.

Courses Must Be Readjusted

Our courses in reading and spelling are being readjusted in the light of recent studies. Our courses in literature, under the guidance of such studies as those of Dr. Mary C. Burch and the current work of Dr. Leonard V. Koos, University of Chicago, have some chance of being adapted to meet the needs of children. Probably the course in composition and language will be the last area to be civilized, but if teachers can increasingly be brought into contact with the results of recent linguistic study and the best contemporary work in education, there is no reason why that process need be unduly delayed.

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A Comparison of Rural and Urban Schools

A comparison of rural and urban schools appearing in the *Kansas Teacher* is presented here as more or less descriptive of these two types of school systems:

In the rural elementary and high schools are found 53 per cent of the pupils in the United States and 58 per cent of the teachers. In rural communities are found 57 per cent of the entire elementary school enrollment, 64 per cent of the elementary teachers and 91 per cent of the elementary schools of which 161,531 are one-teacher schools, 20,135 are two-teacher schools and 16,291 are consolidated schools. In rural communities are found 29 per cent of the entire secondary school enrollment and 36 per cent of the secondary teachers.

The comparison further points out that 4.6 per cent of rural children enter college while 12.8 per cent of urban children enter college. The average length of the school term in days is 156 in the country and 183 in the city. The total per pupil cost, average daily attendance, is: rural, \$75.01; city, \$129.82.

Rural teachers, supervisors and principals earn a yearly average salary of \$855.10, while those in urban centers earn \$1,878. The average of school property for each pupil enrolled is \$299 in the country and \$1,878 in the city.

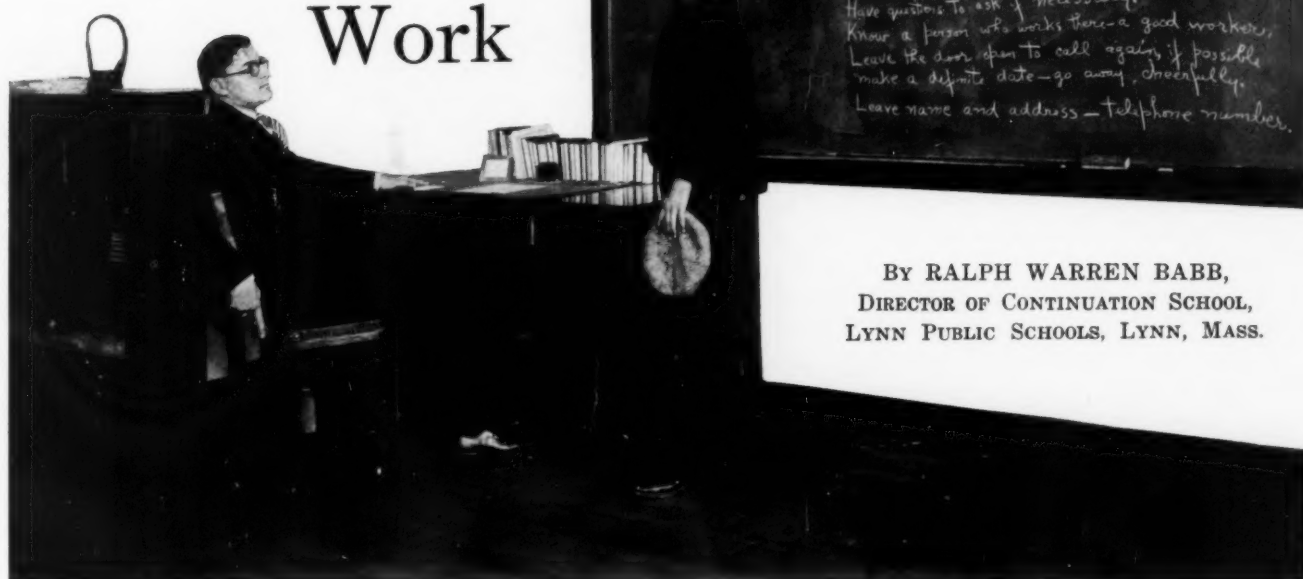
The Place of the Junior College in the Educational Scheme

The period of secondary education is logically longer than the present four-year high school and the first two years of college should be administered as a part of an enlarged secondary school system, an article in the *School Review* suggests.

The junior college is a supplement to the work of liberal arts college in that it draws off professional and semiprofessional students and permits the liberal arts college to devote its energies and resources more largely to the purpose for which they were established.

Junior colleges of the future will enroll three kinds of students: (1) those who are taking the first two years of the regular four-year course of study and expect later to complete their course in the usual college or university; (2) preprofessional students who desire to fulfill the minimum requirements of two years for entrance into preprofessional schools; (3) those who by nature are fitted for and would if given more opportunity be interested in certain completion courses of a semiprofessional nature.

Developing Practical Guidance Work



BY RALPH WARREN BABB,
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LYNN PUBLIC SCHOOLS, LYNN, MASS.

SUCCESSFUL curricula for continuation schools are not to be found ready-made. To be of value, each curriculum must be constructed on specifications set up only after careful consideration of as many facts as can be gathered about the young persons to be served.

For several years the teachers of the Lynn Continuation School, Lynn, Mass., and similar groups have been working on the problem of selecting, organizing and evaluating teaching material. There is certain information all continuation school pupils need and certain general problems of adjustment that practically all of them face, due to their employment at tender ages. There are many other situations calling for definite information and training, which vary materially in their character with the individual, his employment, his social contacts and many other factors.

Grouping on the basis of some factor common to all members of a group, such as employment at the same kind of work, proves to be more practical and a greater aid to effective teaching than does grouping on the more common bases of previous grade attainment, specific achievement or general intelligence ratings. Our school is organized on the employment group basis.

When the continuation school teachers were

invited by Samuel Engle Burr, director of research in the school, to form one of several local research councils, they immediately chose as a general subject for study, "Better Adaptation of Units of Instruction to Various Type Groups of Continuation School Pupils." There were five of us in the group and I was chosen chairman and adviser.

We decided to work with the following type groups since they represent a large percentage of our pupils: (1) out-of-work groups (boys and girls); (2) girls employed in the shoe industry; (3) boys employed in the shoe industry; (4) girls employed as mothers' helpers or in their own homes on "home permit" employment certificates; (5) boys employed in a variety of jobs, all of a mechanical nature.

For specific tasks, we set up the gathering of such facts and information as would indicate, first, the immediate and primary adjustment problems facing members of these groups, and second, such other important and pressing problems as must be faced by them from time to time. These tasks are not new to continuation school teachers. All are working at them. But it is our hope that a description of our method of attacking the problem and of some of the resulting teaching material selected will help others.

Our office records have been accumulating for nine years. In these, there is certain information bearing on our present task. So we studied these records carefully and listed, grouped and tabulated many facts about the employment of these young workers.

Each of four teachers began to make job analyses, for the purpose of discovering teaching content and adjustment problems of the jobs held by twenty members of each of the four employed groups listed above. This information was obtained from conferences with the pupils, visits to the places of employment and conferences with employers, as well as from certain lesson sheet assignments during class.

It was soon evident that the most pressing problem presented was that of the out-of-work group. These young persons leave full-time school to go to work. In so doing, they willingly or otherwise assume certain obligations and responsibilities both toward themselves and toward the other members of their families. When they lose their jobs, they soon become out of adjustment with the situation that has been set up. While they remain out of employment, these obligations and responsibilities fail to be met adequately. A real problem, with many aspects,

develops rapidly and sometimes disastrously. The immediate need of these pupils is to get other jobs.

There appears then to be a factor common to all out-of-work pupils and this may well form the core of a unit of instruction for this group. We therefore concentrated our activities during the past school year on developing teaching material for the out-of-work groups.

This statement does not mean that we ceased our activities in connection with the four groups of employed pupils; on the contrary, it was continued and the field work done by the teachers in surveying the jobs held by employed pupils contributed much of use in developing teaching material for the out-of-work pupils.

Many Employment Problems Revealed

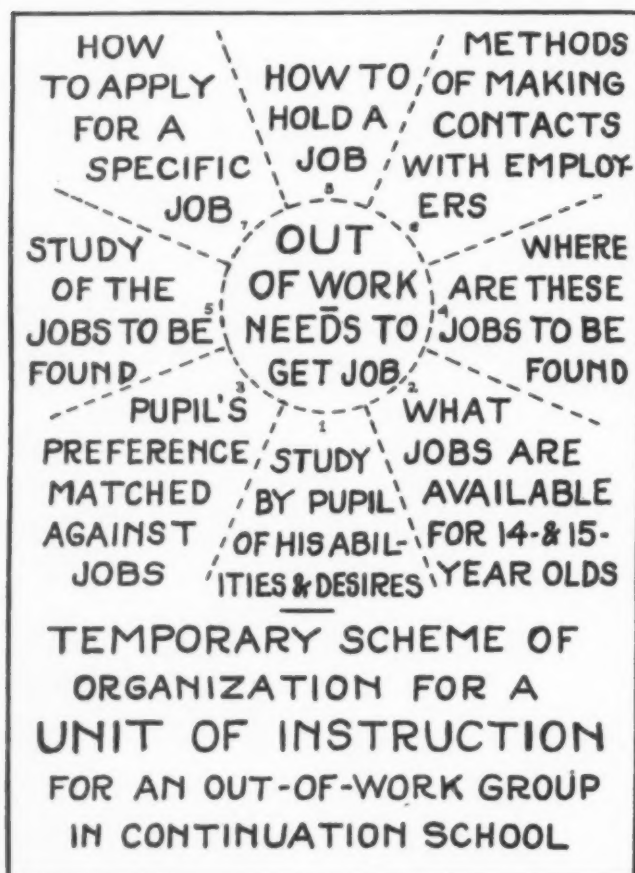
Our study of the out-of-work group revealed many reasons for loss of jobs and failure to get others. The situations listed below appeared often and may be regarded as representing a large proportion of the adjustment problems of the groups studied:

1. Unable to hold job because (a) not able to do the work; (b) work too hard; (c) did not like the work; (d) got "fresh"; (e) boss not satisfied but pupil ignorant of reason; (f) pay too small but pupil would not persevere until job paying more was found.

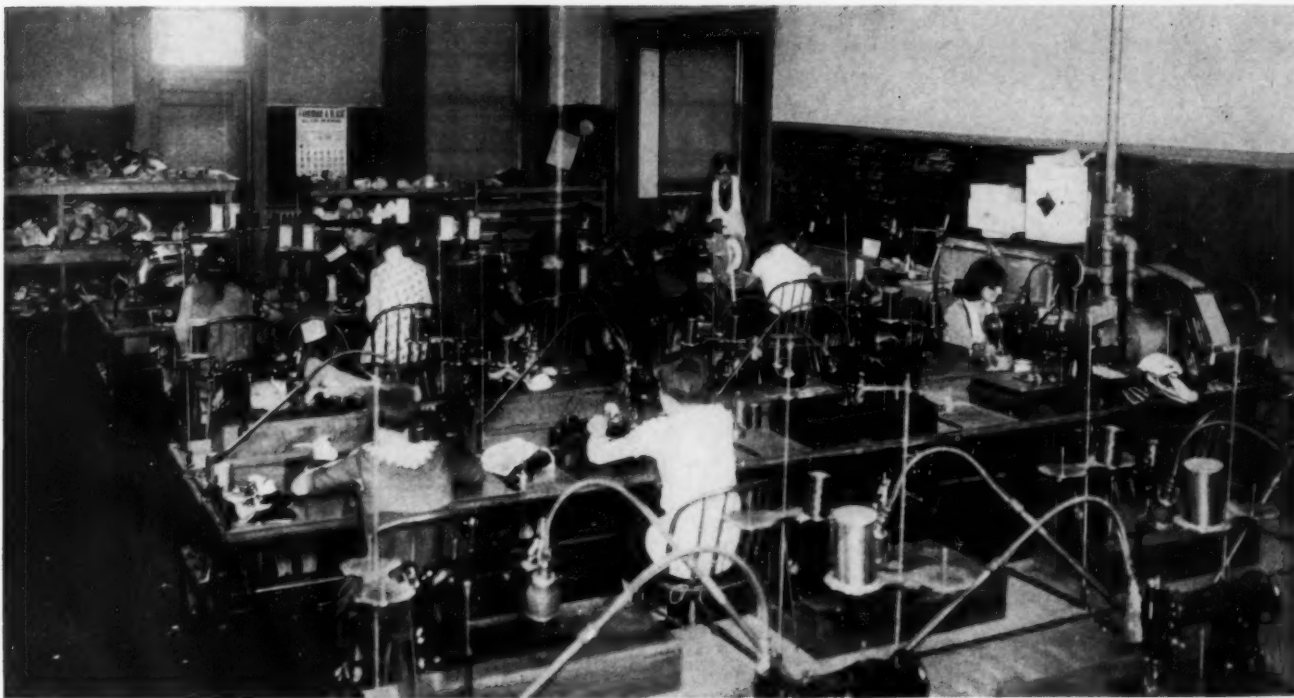
2. In looking for a job, the pupil (a) had no particular job in mind; (b) did not know what jobs might be available; (c) did not know what he liked; (d) did not know what he could do well; (e) did not know of what some of the more common jobs consisted; (f) did not know where to look for jobs; (g) did not know how to make contacts with jobs; (h) did not know who did the hiring; (i) did not know how to apply for a job; (j) did not know how to hold a job after getting it.

On the basis of these findings, teaching material was selected and organized for the direct purpose of assisting these pupils to get the necessary information and training that lead to employment. The accompanying chart indicates the temporary basis of subject matter organization that is set up for these pupils until they are again employed. When employment is arranged for, a basic scheme of organization with the pupil's employment at the center is immediately substituted.

A logical order of presenting this material is indicated by the small numbers on the chart. This order is not followed in all cases; neither are all of these groups of lessons necessary for every out-of-work pupil. The chart simply shows graphically the functions of the teaching mate-



This chart is used in the Lynn Continuation School as a basis for assisting pupils to find work.



Girls receiving training in shoe stitching, work they are quite likely to follow when they leave the school.

rial that has been selected for use with these special groups of pupils. Much of the material selected for this work we have found to be of value in guidance lessons for employed pupils.

The lessons prepared for the purpose of helping the pupil to analyze himself consist of lesson sheets in the form of questionnaires and conferences between the pupil and the teacher. Generally, conferences precede the lesson sheets, but occasionally the lesson sheets are studied and filled in by the pupil first and then become the basis for the conferences. This work is planned to bring out the following information for the pupil: (1) his previous successes or failures in employment and the reasons for them; (2) his personal traits and physical equipment; (3) his special abilities and special disabilities; (4) his financial needs and the economic pressure on his family; (5) his likes, desires and hopes matched against the facts brought out in (1), (2), (3) and (4).

A list of jobs available for continuation school pupils (in Massachusetts, boys and girls fourteen and fifteen years of age) is prepared from our office records which show what jobs have been held by these pupils during the last nine years. These lesson sheets indicate approximately the number of boys or girls who may expect to find employment at any particular type of work during a school year. The trends are also noted. To-day more chances are developing in some lines while fewer chances exist than formerly in other lines of work. Some jobs have disappeared. New

kinds of jobs are appearing. All this information is given the out-of-work pupil and he is aided in properly interpreting the data.

After the pupil knows what jobs may be available, he is encouraged to choose one, two or three at which he thinks he would like to secure employment and for which he thinks he is somewhat fitted. Of course he uses his personal check-up and the data on chances of employment and is guided by conferences with his teacher.

Opportunity is then given the pupil to find out just what these jobs consist of by conferring with pupils who work at them. An outlined questionnaire guides these pupils in putting down on paper just what is done on the job. (These lesson sheets give a fine check-up on the teachers' job analyses made during visits to places of employment.) Further conferences with a teacher help the pupil to interpret the facts obtained from the working pupil. If possible, the school also gives the out-of-work pupil a chance to try, in the school, the work of the job before actually making application for employment. The accompanying picture shows the shoe stitching room where girls may try shoe stitching before seeking employment at that work. Most of the girls in the picture are already employed at various jobs in shoe factories.

Detailed information is prepared in the form of lesson sheets to let the out-of-work pupil know just which firms have employed fourteen and fifteen-year-old workers. The names of the persons who do the employing are also given to the pupils

whenever these are known. These facts are gathered from our office records.

The pupils are given information about how former pupils secured their jobs. They are assigned definite tasks making inquiry about possible jobs of their parents or other members of their families or friends, or jobs in factories.

Considerable attention is given to helping the pupils to learn a good technique for use in applying for jobs. They are trained as to the approach and the initial inquiry, how to answer questions directly, how to ask questions about the jobs, how to go away pleasantly with the door left open for a later call if they are not engaged at the first interview. Practice at this kind of work under varying conditions is provided. At first the teachers to whom the pupils apply are sympathetic and easy, but later purposely become exacting and indifferent. Pupils are required to practice applying for jobs in office surroundings and in shop surroundings, while a teacher is carrying on his regular work and is not therefore desirous of interruption. After a little practice, the pupil is sent out and he reports upon his successes or failures.

When a pupil obtains employment special attention is given to making him efficient on the job by setting up a new scheme of lessons based primarily on his work. But previous to securing the job much information may be given the pupil that will be of value to him in holding the job when he gets it. It is made plain that the work must be satisfactory to the employer, that the boy or girl may have to work hard, that the first day, week and month count very much, that employment brings obligations of giving service, time, production, skill and judgment on the part of the worker, that special ability counts, that being willing to accept responsibility counts, that the pupil should bring his problems to the continuation school—his service station.

The result of the work of our research council is the organization of a unit of instruction especially selected for a definite group of continuation-school pupils. It is quite different from any textbook material or material offered in the traditional school. It has been selected to function for a group of pupils who have peculiar, immediate and temporary needs.

May I suggest to those interested in similar work that the tendency seems to be for groups of teachers to attempt a piece of work that is too large for the time and effort they have to put into the work outside of their regular teaching job. A comparatively small but important problem should be selected and efforts should be focused on completing a usable piece of work.

Articulation Between High Schools and Colleges

The educational program of every unit of the school system should be determined primarily by the needs of pupils at its level, Dr. Jesse H. Newlon, professor of education and director, the Lincoln School, Teachers College, Columbia University, believes. On the subject of the articulation of the high school with institutions of higher learning, Doctor Newlon expresses himself thus:

"The rapid increase in the enrollment of American secondary schools in the past forty years has brought into these schools millions of pupils not destined to college entrance. The standards for high schools which have been set up by standardizing agencies have dealt primarily with the college preparatory function. The establishment of these standards was beneficial at one period in the development of the high school, but present conditions demand greater freedom for the secondary school to work out its own problems.

"Articulation between secondary schools and higher institutions cannot be achieved while the secondary schools are bound hand and foot as regards the most vital part of the curriculum. Every program of curriculum revision in secondary schools sooner or later runs up against the stone wall of the fifteen units. There can never be smooth articulation as long as the high school is thus bound by a force entirely outside its walls.

Individualized Instruction Needed

"The expansion of the secondary school downward through the junior high school and upward through the junior college is responsible for much confusion as to functions, but certain principles will ultimately be accepted as essential to the development of an integrated system of education.

"The aim of a system of education should be to provide a continuous, integrated curriculum for each individual, in which every activity will lead on to the next in a smooth and unbroken sequence. Every unit of the school system should perform its special function and should provide the individual with the special training which is necessary to enable him to continue his education on its level. The individual should be guided, not forced into the studies and activities which will meet his educational needs and will fit him to become a useful member of society.

"The application of these principles would permit the development of curricula that would provide those values which should constitute the common heritage of all in a democracy."

Selecting, Laying and Maintaining Linoleum Floors

Linoleum, carefully chosen, faultlessly laid and properly cared for, offers the school a means of rehabilitating its old and unsightly floors or of protecting its new ones

BY E. V. CARLQUIST, LANCASTER, PA.

SATISFACTION with linoleum hinges largely on three things: first, the selection of the proper type for the particular place it is to be used; second, a faultless job of laying; third, suitable care of the floors after the linoleum is laid.

In schools it is especially important that these three things be watched carefully. Children's feet are notoriously inconsiderate. As they come tramping and scuffling in from the street and playground, they put the floors to no mean test. Admirably suited as linoleum is for use in schools, if it is not of the right kind, if it is imperfectly laid or if it is not given the necessary care, it may become unsightly in a short time. Happily, however, the selection, laying and maintenance of linoleum are simple matters, and when careful attention is given to each of these points the floor question should never be a source of worry or trouble.

Battleship Linoleum Most Popular

By far the most commonly used type of linoleum, as far as schools are concerned, is battleship linoleum. This is a plain colored variety coming in brown, tan, light and dark gray, terra cotta, blue, green and black and ranging in thicknesses from a little less than an eighth of an inch to a fourth of an inch. Its popularity rests largely on the fact that it is of heavy gauge and therefore able to withstand successfully a great deal of traffic over a period of many years.

Plain colored linoleum, however, is often selected for school floors when patterned inlaid linoleum could be used to as good an advantage. Then again, one-quarter-inch and three-sixteenths-inch battleship is sometimes purchased when a thinner gauge of battleship would suffice. Lack of understanding of the points to be considered in selecting linoleum is responsible for many misfit floors.

Before going into the matter of selecting the type, color and thickness of linoleum, it might

be well to say that battleship is by no means the only kind of linoleum suitable for school purposes. Architects and school boards that insist on specifying heavy gauge battleship are frequently overlooking an opportunity to beautify the floors considerably and also in some instances to economize on them. Patterned linoleum is more attractive than plain colored linoleum. Inlaid linoleum, in which the pattern goes all the way through the material to the burlap back, is made in rich marble designs, tile patterns and in jaspé or striated effects that are exceedingly attractive. These inlaid linoleums are more decorative than plain colored battleship and, in view of the increasing emphasis that is being given to beautifying school interiors, they should be seriously considered. In some instances, the choice of inlaid linoleum will result in a saving on cost. The thickest grade, $\frac{1}{8}$ -inch thick, is sufficiently heavy for those places where there is a great deal of traffic.

The volume and character of traffic are the factors that should determine the choice, weight and color of linoleum to be used. The entrances and corridors bear the heaviest and dirtiest traffic. At the entrances it is especially severe, and battleship linoleum of the heaviest grade, $\frac{1}{4}$ -inch, is unquestionably the best suited to withstand this hard wear. As for color, brown or tan is least apt to show the dirt and is therefore a practical shade to use.

Corridors Bear Heavy Traffic

First floor corridors bear nearly as severe traffic as do the entrances. The same grade and color of battleship, therefore, will be best for these corridors. But by the time the traffic reaches the upper floors, its volume is less and likewise its severity. Much of the dirt and grit tracked in from the outside will be left on the lower floors. In the upper floors, then, a lighter gauge of goods, $\frac{1}{8}$ -inch for example, in various colors can be considered. For uniformity's sake, however, it might be best to keep the same color



In the photograph above is shown the main lobby of the Richmond High School, Richmond, Calif., where linoleum simulating tile is used. The linoleum in this case was cemented to deadening felt paper. Pictured below is a corner of the cafeteria in a high school at Columbia, Ind., where another linoleum of tile pattern is employed.



throughout the corridors, although thickness can be decreased as traffic decreases.

When offices, classrooms, laboratories and similar places are considered, the question of selection becomes more complicated. Naturally, as the traffic is less heavy in these rooms than it is in the halls, thinner gauges of patterned linoleum can be considered. If, however, there is to be a great deal of walking in and out and scuffling of feet, as in the principal's office for instance, the heavier gauges and dark plain colors should perhaps be retained. Ordinarily, however, $\frac{3}{16}$ -inch gauge or one that is slightly under $\frac{3}{16}$ -inch can be used with good results.

That brings inlaid linoleum into the picture. Jaspé linoleum, in which light and dark shades of the same color are drawn out in striated lines, is admirably suited for classrooms. It can be secured in taupe, gray, tan and green, none of which reveals dirt readily. Jaspé linoleum is also made with small inset figures in a contrasting color evenly dispersed several feet apart. These inserts lend an interesting color note to the floor. Then, in addition, there are various marble and tile designs in color combinations that will not show soil quickly.

When the linoleum has been selected, the question of laying or installing it is next in importance. The only laying method that is really suitable for schools is a cementing process. This can be done over wood or concrete subfloors, new or old. Incidentally, for old floors that have become worn, unsightly and insanitary, linoleum offers a splendid remedy. Shabby floors can be replaced by new, sanitary and attractive floors. All that is required to prepare old floors for the laying of linoleum is to replace or nail all loose, defective or badly worn boards, plane down any unevenness of the boards and clean the floor thoroughly.

Dry Floor Is Necessary

In laying linoleum according to this cementing method, every precaution must be taken to see that the subfloor is clean, smooth and dry. Linoleum cannot be laid successfully over a damp floor. If the subfloor is of concrete, it must be thoroughly dried before the linoleum can be laid. Concrete floors in contact with the ground or having no ventilated air space beneath them will never be entirely free from moisture and it is out of the question, therefore, to lay linoleum over them successfully. This moisture would set up a chemical action that in time would cause the linoleum to disintegrate.

A simple test that can be used to determine whether or not the floor contains moisture is to place pieces of linoleum about two feet square,

face down, on the floor, weighting them down around the edges. Place one piece near each corner of the room and one near the middle of the floor. After about twenty-four hours take them up. If the floor is moist, dark spots will show beneath the squares.

After the floor is cleaned, a layer of one and one-half pound builders' deadening felt, about an eighth of an inch thick, is pasted down. The linoleum is then cemented on top of this lining. Beneath the snug fitting seams a waterproof cement is used. The finished job gives a floor that appears to be all in one piece. It is difficult to detect the seams or joints even on close inspection. It is permanent, sanitary and waterproof. Another interesting fact about linoleum is that it is highly fire resistant.

Felt Lining Prevents Cracking

The primary purpose of the felt lining is to prevent cracking and buckling, which are almost certain to occur if linoleum has been cemented directly over a wood subfloor. A wood floor is subject to seasonal contraction and this pulls the boards apart slightly. If the linoleum is cemented directly to such a floor, the contraction splits the linoleum in long cracks parallel to the boards. The corresponding expansion makes it buckle. The felt, however, takes up this expansion and contraction, its under layer next to the floor shearing with the boards while the upper layer holds the linoleum.

Because concrete is not so subject to these seasonal changes, it is possible to cement linoleum directly over it. The meritorious features of the felt layer, however, make its use desirable for even concrete floors. It gives added resiliency to the naturally resilient linoleum and makes the floor more comfortable underfoot and also more quiet. The latter quality is particularly desirable for schools.

Finally, there comes the question of maintaining the linoleum after it has been laid. Next to good laying, the care accorded a linoleum floor is largely responsible for the service it gives. If it is scrubbed with soaps and cleaning agents that contain abrasives or that have a high alkaline content, its life is shortened materially. In time, cleaning agents of this kind will actually wear away the linoleum.

Within the past year and a half, several manufacturers of linoleums have introduced a new production process that changes the recommendations usually given for maintaining linoleum floors. This process consists of the application of a nitrocellulose lacquer finish to the linoleum. The lacquer is applied in such a way that it penetrates the sur-

face, thus making a physical bond with the material and sealing the tiny pores. The result is a floor that is practically dirtproof and stainproof. It also has an exceedingly smooth finish. While these new finishes simplify floor maintenance, they are not cure-alls. Floors must be maintained properly, and the proper method depends upon the place where the linoleum is used and the character and volume of traffic to which it is subjected. Two different methods are recommended for proper maintenance.

Methods of Cleaning

When traffic is not severe and when the floor area is small, these specially processed floors can be maintained easily and satisfactorily by a simple daily brushing or dry mopping. The linoleum may be washed from time to time as more thorough cleaning is needed. For this mild soap and warm water should be used. Every six months or so, depending on the action of traffic, the lacquer surface should be renewed by the application of a coat of brushing lacquer. A lacquer developed especially for brushing or spraying on linoleum is now on the market.

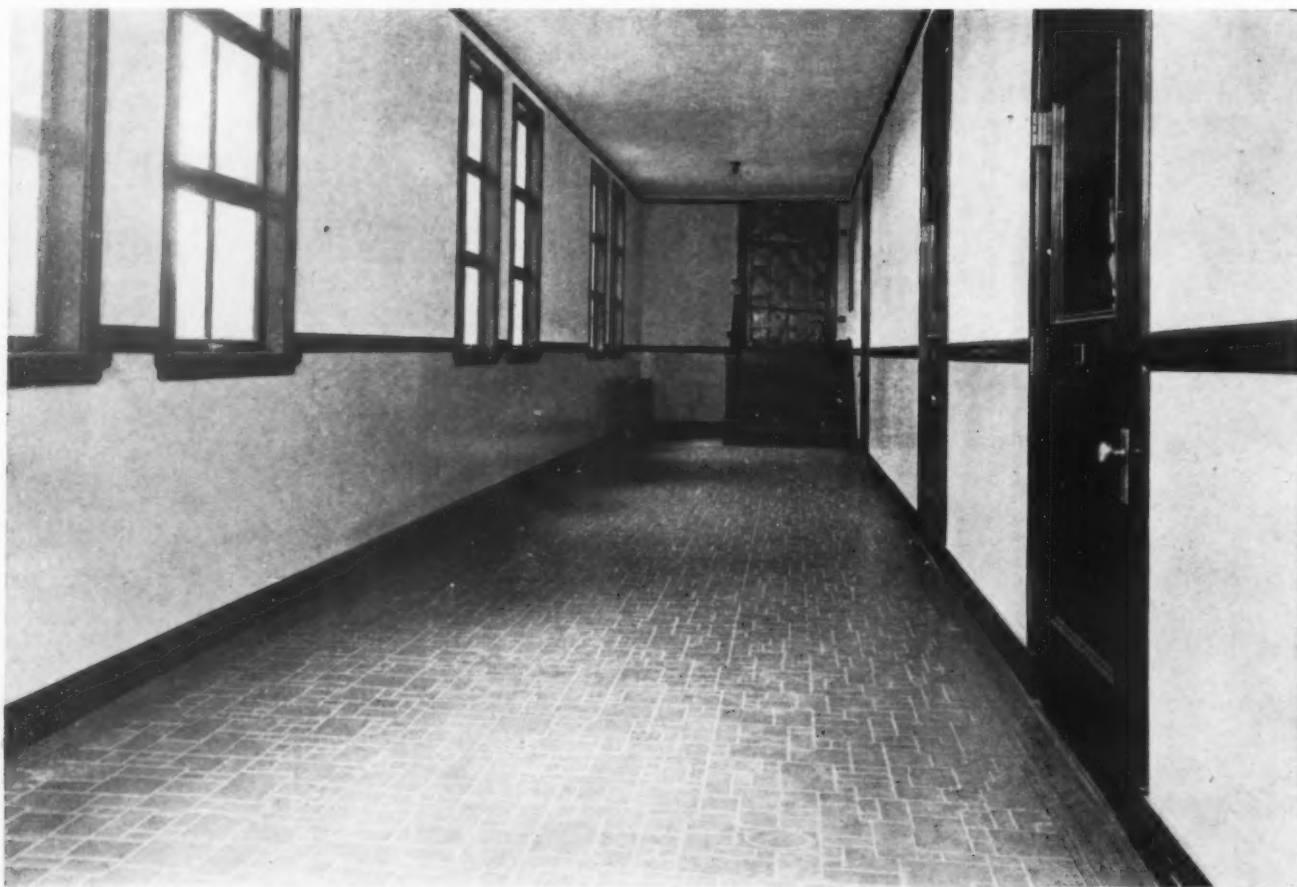
In schools the method of care that has been described here can probably be used only in offices, classrooms and entryways. For corridors and

other floor areas, lacquering is not so practicable. In these places waxing and polishing have been found to be the best method of maintaining linoleum floors. Lacquer processed linoleum will take a better wax finish than linoleum that is not made by the new process. Sealing the pores as it does, the lacquer gives a nonporous surface. Such a surface will not absorb the wax and because of this it does not become necessary to apply several coats to build up a hard protective finish. One light coat will give the same effect now as several coats did on the older type of linoleum floors. This coat should be applied when the floor is first placed in position.

By using an electric polishing machine of institutional size, the satiny wax finish can be maintained from day to day. Occasionally it will need washing. Of course, the wax will gradually wear away and become dull and rewaxing will become necessary. Frequently new wax can be applied to the heavy traffic areas only. Complete rewaxing should be necessary only a few times each year.

Preparing for a Lacquer Finish

When a linoleum floor has been waxed, lacquer cannot be applied until all the wax has been removed. Some schools may want to lacquer certain



The pattern shown above is used in the corridors of St. Brigid's School, San Francisco. A wood grain is imitated in the border.



A plain linoleum is used in the study library of the South Side High School, Denver, Colo.

areas of old linoleum when the waxing and polishing treatment has been in use. In such a case, the floor should be scrubbed vigorously and then gone over thoroughly with a cloth soaked in gasoline or naphtha. This will remove the wax. The final step before lacquering is a good rinsing of the floor with clear water. If the wax is removed carefully and completely in this manner, the floor can be lacquered successfully.

Maintenance Is Not Costly

General experience has proved that linoleum floors that are maintained by waxing and polishing can be cared for more cheaply than other floors and that when they are properly waxed and polished, the maintenance expense can be reduced to about half.

A field study on this subject was made some time ago by the A. E. Nielsen Co., Chicago, an engineering concern. The Roosevelt High School, Wyandotte, Mich., and the public schools of Detroit were among the places studied. The former school has 6,000 square yards of linoleum floors cemented over felt to concrete. The linoleum is brushed daily and is washed and rewaxed twice a year. The labor costs for the care of the floors amounted at the time of the survey to \$125 a month, or approximately ninety-one cents a square

yard yearly. This was an annual saving of thirty cents a square yard over the cost of maintaining the floors that had been in use during previous years.

In the Detroit public schools, where similar care is accorded the floors, the labor cost was \$75 an hour, or twenty-seven cents a square yard annually. This was a saving of thirteen cents a square yard over the previous maintenance cost.

These figures demonstrate, then, the genuine economy that can be realized by caring for linoleum properly. More important than the lowered maintenance cost, however, is the fact that floors cared for in this manner will last longer and look better.

Purchase Points to Remember

The three points that should be kept in mind whenever the purchase of linoleum is contemplated are repeated here in the following summary:

The linoleum should be chosen on the basis of the character of the traffic it will have to bear; it should be laid by the felt layer process and it should receive proper care. If each of these points is carefully observed, linoleum will prove its worth as a durable and ornamental covering for school floors.

Differentiating the Training Needs of Rural and Urban Teachers*

Since a rural school deals with those who live in a special environment, its teachers should be equipped to understand rural people and their particular economic and social problems

BY JULIAN E. BUTTERWORTH, PROFESSOR OF EDUCATION, CORNELL UNIVERSITY

I HAVE a friend who likes to argue with me regarding the question of whether rural education is different from any other education. "How is rural arithmetic different from any other arithmetic?" he asks. And I have to reply: "There is no difference in the mathematical laws involved. Division, interest and square root involve the same laws whether taught in a large city or in a remote one-teacher school." But I believe I am justified in adding that a progressive teacher will give each group of pupils problems involving operations that are within their every-day experience. The question of whether there are significant differences in the two fields should not be settled by citing an extreme case.

What Is a Rural School?

Since professional people disagree in this matter, it is not surprising that the school trustee is sometimes perplexed. His common sense enables him to see that arithmetic is arithmetic, yet he often has the feeling that there are some significant differences between rural and urban school work. For the conscientious trustee the problem has practical aspects. If he is the sole representative of the people in a one-teacher district he often has to choose the teacher without guidance and has to pass judgment upon her policies and activities. If he is one of a board of education in a village or county school system, he has to aid in selecting a principal or superintendent and in formulating and appraising the policies of the schools. Naturally, if there are any significant differences between rural and non-rural education they will show themselves when such problems are faced.

In this paper, I shall set forth some of the issues involved in this question. I do not pretend to represent all rural school thinkers and workers. Not only are there "schools of thought" in rural education but within a particular "school"

individuals differ. However, I believe that I am presenting substantially the views of one group that appears to have considerable influence at this time.

Our conception of a rural school is probably broader than that held by many. As here used, the term "rural school" does not refer to a one-room school only. It does not even designate an elementary school. A rural school is not merely a school in the open country, even of the consolidated type; it may be located in the small village. Nor is it one that trains for the farming occupations only. Since many of the boys will go into farming and many of the girls will be homemakers in rural communities, the progressive rural school will naturally offer special curricula in agriculture and homemaking. But it will offer other curricula for those looking toward law, medicine, business or engineering whenever there may be need for such services.

A rural school, as we conceive it, is one that serves those who live in areas having a relatively low density of population. Roughly speaking, it is a school found in a community of less than 2,500 population. In New York this limit is 4,500. Some such conception seems necessary if we are to correlate the various rural agencies that provide a complete common school education of adequate quality for those living in the nonurban centers. A village and its contributing open country areas cannot stand apart but must cooperate, if the needs of modern education as represented by specialized vocational and academic curricula in the high school—music, art, library facilities and health activities—are to be met.

Relating School Work to Life's Problems

According to this conception a rural school is unique only in that it deals with those who live in a special environment. It attempts to train not for that environment but through that environment for whatever opportunity life may

*Read at a meeting of the Associated School Boards and Trustees of New York State, Troy, N. Y.

hold. Rural education is thus seen to be related to all education, whether it is adapted to the needs of those entering college or one of the occupations. All belong to the same family but each has its own personality. In rural education we want no different philosophy, no different aim from that of educators from the largest cities.

Rural education is one of the most important of our special environment types of education. This is partly because of its historical significance in a country that has so recently developed from a pioneer status. It is of particular importance largely because, as here defined, it includes 53 per cent of all pupils enrolled and 58 per cent of all teachers in public schools of the United States.

What the Country Child Lacks

In order that we may have a common background for a constructive attack on this problem, I shall present briefly a few elementary concepts and a simple line of reasoning.

1. We know that environments differ.
2. The environment in which a person lives provides experiences that influence his development. The child in the country has an intimate contact with nature that not only gives valuable knowledge, if he will observe closely, but may, especially under wise guidance, develop habits, ideals and attitudes that are profoundly significant throughout life. But intelligent people do not submit entirely to environmental influences. They recognize limitations in those influences and seek to rise above them. So, for the rural child, as for any child, we see certain lacks in social contacts, in health practices and in breadth of reading during leisure hours, and we seek to provide experiences that will overcome the deficiencies observed.
3. To supply these needs a curriculum is first of all planned and is then taught, supervised and administered.
4. There are many rural environments. They range from those of the remotest mountain ranch through the fertile farms of the prairie states, the hamlet, and the village to those of that larger aggregation that falls just short of what we call a city. Consequently there should be not one rural curriculum but as many as there are environments that create significant educational needs.

Gradually we are taking this question of differentiation out of the realm of opinion by making analyses of the tasks to be performed in different types of schools. In a recent study Verne McGuffey¹ compared 550 teachers in one-room

schools of twenty-four states with 200 grade school teachers in the cities of five states. One hundred and twelve activity items were used as a check list. He stated: "At least 80 of the 112 items in the check list are performed by half or more of the teachers in the one-teacher school and by few or none of the grade teachers." For example, 61 per cent of the teachers in one-room schools must order school supplies as compared with 5 per cent in city schools. Five per cent of the one-room teachers receive and audit school supplies compared with 1 per cent in city schools. Sixty-one per cent of the first group must make the final decision in cases of classification and promotion, compared with 12 per cent in the second group. Forty-eight per cent in the small school must provide publicity for the school as compared with 1 per cent in the large school. Sixty-two per cent of the one-room teachers must plan and execute work with little or no supervision as compared with 6 per cent in the city schools. When the program is adjusted to accommodate several grades the percentages are 80 and 3; when the teacher serves as school librarian, 60 and 4; when she keeps all school records, 71 and 6; when she conducts entertainments for the community, 60 and 2. These are only a few of the many activities wherein the teacher in the one-room school faces problems that the teacher in the city school meets with relative infrequency.

Special Training Should Be Provided

Two other conclusions by McGuffey are of interest. He stated that "There are few differences between the activities of teachers in the one-teacher schools of various states." If other investigations confirm this finding, then it is evident that facts similar to those here given may justifiably be used as a basis in training one-room teachers. There are still 160,000 of these one-teacher schools in this country. "In the opinion of the county superintendents," according to McGuffey, "the most important factor in the success of teachers for one-room schools is special training for that type of position." If other studies agree with this, then it is obvious that training for dealing with these situations should be provided. We should not leave the teacher to fall back upon the costly method of learning through undirected experience.

One of the most important requirements of the rural school is that the teacher understand the rural environment and know how to utilize and supplement it in getting the maximum of pupil development. While the curriculum, basically, will be similar to that of any progressive school,

¹ McGuffey, Verne, Differences in the Activities of Grade Teachers and of Teachers in the One-Room Rural School, Doctor's Dissertation, Teachers College, Columbia University.

certain modifications are to be desired. The demand for vocational training in agriculture is perhaps the most striking of the needs of the rural areas not ordinarily existing in the urban centers. Nature study is a subject perhaps not more needed than in the city but certainly offering greater opportunity to children in the country and village districts. It may therefore receive reasonable emphasis. The relative isolation characteristic of the country creates needs for contacts and for an understanding of the activities and ideals of other groups. Naturally the alert teacher, in making her work more effective, will use problems in arithmetic, projects in geography and themes in English that are based upon environmental experiences.

Teacher Must Understand Rural People

The specialized training needed in agriculture, homemaking and nature study may be conceded. But, it is said, the others seem to be largely matters of common sense. Yet if an investigation recently made of 100 rural teachers of New York is at all representative, we cannot trust these matters entirely to the individual's native insight and initiative.

In a recent study Shales¹ used what he calls a "weighted environment score" to measure the degree to which teachers make use of environment in their instruction. The scores varied from 0 to 35. Thirty-five of the 100 teachers had a score of 0; one a score of 35. The median was 3.1. The investigator set up an empirical standard of 20 on his scale as representing reasonably effective use of environmental factors. Ninety-five per cent fell below this standard. Among the investigator's conclusions are these:

1. The group as a whole made relatively little use of the out-of-school environment and experience of the children in the teaching covered by these observations. Thirty-five per cent did nothing of this sort.
2. Such contacts as were made were largely fragmentary and incidental.
3. Only one-third of the teachers were following any of the procedures usually considered essential to the effective use of pupils' out-of-school experiences.
4. The project method of dealing with real life problems was receiving practically no application.
5. Since the use of the out-of-school environment appears to be a special ability, it must like all other skills be acquired through understanding and interested practice.

¹ Shales, John M., *A Study of the Use of Out-of-School Environment by the Teachers of Certain Small Rural Schools*, Doctor's Thesis, Cornell University, 1928.

The rural school worker, whether teacher, principal or superintendent, needs to understand rural people and their economic and social problems. There are questions regarding the nature and the number of social organizations that are needed; questions of health, including the services of doctors, dentists and hospitals, of the rural church, of libraries, lyceums, Chautauquas and other means for supplying information and recreation; questions of economic returns and of cooperative action for meeting social and economic problems. These cannot be ignored if the school officer is to relate the school to the problems of living. Furthermore, knowledge of these matters will give him insight that will greatly strengthen him in his leadership activities.

These problems involve both knowledge and attitude. The knowledge may be given readily through courses in rural sociology and economics and related practical work. The development of the right attitude toward problems of rural life is not so easy. There is involved an understanding of conditions as they are, an appreciation of those things in rural life that are wholesome, and a determination to encourage change when change is to be desired.

Regular Courses Must Be Modified

There appears to be rather common agreement that under the present conditions the following specialized instruction will be sufficient for the training of the rural school teacher:

1. A general course in rural education serving as an introduction to the whole field. This will attempt to clear up misconceptions, set forth objectives and solve professional problems peculiar to rural school service. Curriculum adaptation should be one of the more important problems.
2. Practice teaching in various types of rural schools (one-room, two-room, consolidated and others).
3. A course in rural sociology and economics with some field experience with community problems.
4. A course in nature study and agriculture to give such knowledge of these fields as will enable the teacher to appreciate and use these environmental factors.

These courses demand not over one-fifth of a two-year normal school curriculum. Besides these special offerings the instructors of general courses in music, arithmetic, geography and allied subjects should keep in mind the special problems of the rural worker and give suggestions from time to time.

According to our definition, the rural school

must deal with the educational problems in a variety of situations from the one-room school of the open country to the secondary school of the village that serves both farm and village youth. Among these situations professional problems of the teacher differ both in kind and in degree. So also the work of the village principal and the county superintendent differs from that of the principal and the superintendent of the city. We do not as yet have detailed data showing the extent and nature of these differences, but a few illustrations may serve somewhat the same purpose.

Determining a Salary Schedule

Some of the problems have both similar and dissimilar elements. Take, for example, the preparation of a local salary schedule. The general factors to be taken into account are probably largely the same—the cost of living, the amount of training and experience, and efficiency. I am not sure but that a factor has to be considered in constructing a county schedule that does not apply in a city—that is, a recognition of the fewer social and recreational opportunities of the county and the rural village. However, it is evident that the particular facts to be used in determining the basic salary that will provide adequate living standards will differ in city and country. The techniques for securing the facts may be much the same, but the facts themselves will be different.

In planning a building program there appear to be numerous differences between the country and the city. In most rural counties the population is increasing little. In many it is declining. Even when there is little change in total population it is often shifting from hamlet to village or from village to village as new roads are opened or new service agencies are established. In order to interpret such situations and to predict the movement of the farm population, it is necessary to have a broad background of knowledge regarding rural life. We need to have some general conceptions, at least, as to the effect that the increased use of farm machinery is likely to have upon farm labor and consequently the number of persons who can be supported in the country. We should know something of the probable trends in farm income as compared with other incomes to see what the effect may be upon the size of the rural population.

In attempting to predict the movement of the farm group within its own territory, it is imperative that we consider the influence of such factors as the service facilities offered in various villages, the proposed development of the state

highway system and the desirability and the practicability of consolidating schools and transporting children. In determining the specific building needs of a community we must measure as accurately as we can the demand for agriculture and other vocational subjects. The predication of the community needs in agricultural training, for example, almost defies the specialist in agricultural education, and certainly would be beyond one not familiar with agricultural conditions.

Leadership is needed in both urban and rural school situations. From general observation one is tempted to say, however, that democratic leadership of the whole citizen body is more essential to educational progress in the country than in the city. The rural citizen has fewer matters to demand his attention and is less accustomed to delegating responsibilities. Consequently it is more important to keep him informed as to school needs in order to prevent his blocking progressive policies. While the rural citizen has, of course, the same general characteristics as the urban citizen, the conditions under which he lives appear to develop habits and ideals that create special problems for the school leader. His first step in successful leadership is the understanding of the rural citizen and the social and economic conditions under which he lives.

Town and Country Face Different Problems

Some administrative problems differ widely in rural and urban situations. Among the more important ones are the finding of satisfactory housing conditions for the teachers; organizing the schedule of classes for one teacher to cover six to eight grades instead of one grade; keeping the teacher professionally alert when she is largely without contact with other teachers; providing an effective plan of supervision; consolidating the schools and transporting the children. It is true that most cities have problems of consolidation and transportation, but how different they are from those found in rural communities. The city has a public carrier system already established with its own trained staff of managers and workers; it has the wealth to carry out any reasonable project, and the people involved are probably not so tied down to habits of thinking that retard progress. In the country new means of transportation usually have to be provided, often under road and weather conditions that are disheartening; the transportation system has to be administered by the school officers; increased funds have to be found when income is already too near the margin of existence; and the people

have to be persuaded that the proposals are essential to their welfare.

I have, of course, barely scratched the surface in analyzing these two situations. It seems fair to say, however, that rural and urban administrative jobs have both similar and dissimilar elements. These elements may include principles, facts, techniques, ideals, habits and attitudes. Whether the dissimilar elements represent 10, 50 or 90 per cent I do not know. At present no one can do more than express a judgment.

Separate Training Not Advisable

The prevailing sentiment among those particularly concerned with the rural school is that there should not be separate institutions for the training of those who are to go into rural service. We want to break down barriers between country and city, not build them up; and the special rural normal school would, so far as we can predict, tend to have that effect. It follows, then, that every normal school or teachers' college having rural areas within its sphere of influence should do something along this line for the teacher. A teacher training institution supported by the state owes its services to the rural areas as much as to the cities. It should not plead a lack of responsibility for training rural workers because it cannot supply the demands of the cities. We have no moral right, except when conditions are temporarily beyond our control, to say that the training of rural teachers should be left to lesser training agencies, such as the high school training class. Fortunately there is evidence, in several states at least, that the training class has now served its purpose and that more adequate provision will be made through the normal schools and the teachers' colleges. This year New York has organized departments of rural education in three of its state normal schools. The success of these departments is encouraging.

Opinions differ in regard to the organization of the rural training service, but my own belief is that for the present there should be special courses or even a separate department of rural education for those preparing for rural service. However, it is not the name "rural" that matters. What is significant is that the school worker be trained to meet the needs that he is likely to face. Perhaps when we have made it second nature to give training in terms of the problems that confront each group, we can ignore the term "rural." I believe that this time is far distant. We still seem to need a symbol to remind us of the nature of our task and to hold us to it; to keep us from veering toward those attractive problems of the urban community that now seem

to win the larger share of our attention. But, let me repeat, whatever organization of the special service for rural school training is provided, it should be built upon and correlated with the offerings in general education.

Progress in providing this special service has been encouraging. A study made by Bunting and McGuffey¹ in the spring of 1927 showed that of 149 teacher training institutions from which data were received 126, or 85 per cent, were engaging in one or more of nine types of activities stressing the needs of rural schools. These data showed a considerable increase in a four-year period. Some teacher training officials have not established differentiated activities for rural workers because they do not believe that the differences are significant. Others are only awaiting the time when the demand will be sufficient to justify the effort. Even the colleges and universities are beginning to sense the obligations and the opportunities of this field, because as long ago as 1923, seventy-seven of these institutions were offering 124 courses in rural education. Several universities are now offering graduate instruction to those wishing to prepare for positions of leadership in the rural field.

How New York State Is Financing Rural Education

The New York State system of equalization for financing rural education, effective in 1930, whereby each local district will receive state aid according to its need, and is entitled to a minimum of \$1,500 annually, is excellent, according to the specialist in rural education, United States Office of Education, Mrs. Katherine M. Cook. Under this program, districts with inadequate and meager funds will be in a position to offer adequate and sufficient training to their pupils.

Two fundamental factors are involved in determining the equalization quota that a district shall receive under this policy: first, full valuation of the district; second, average daily attendance of pupils in the district. It is so arranged that the equalization quota increases as the pupil attendance increases and the valuation decreases.

The whole equalization program in New York State, according to Mrs. Cook, contemplates benefit to the child irrespective of where he lives. The industrial centers where population is greater will aid in the distribution of funds to the districts which could not independently support their educational demands.

¹ Bunting, R. L., and McGuffey, Verne, *Preparation of Rural Teachers*, Teachers College Record, vol. 29, pp. 716-727, 1927.

How to Choose the Site for the New City School

This study, developed over a period of years, is replete with valuable suggestions for the school official whose task it is to choose a suitable location for the new school

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MORE attention should be given to the selection of sites for city school buildings. Three or four—seldom more than four—items have been considered in the past, and even then these have not been common to all cities. This study does not attempt to develop any scientific instrument for selecting city school sites, since such a procedure would be impossible as well as highly impracticable, due to changing conditions and situations. Many items, however, should be considered before a site is finally selected. The importance of these items will determine the weight that should be attached to them.

How the Study Was Developed

This article was not written overnight, but has been developed over a period of several years. A brief description of how it was developed follows:

1. The various score cards dealing with rating of school buildings which usually have several items bearing on the site were studied with special reference to form and general idea. The score cards studied were the Strayer and Engelhardt,¹ the Stevenson and Ashbaugh,² the Wisconsin³ and the score card for selecting school sites for rural consolidated school buildings.⁴

2. A bibliography was made by checking books, magazine articles and school building programs and surveys for the pages dealing with the site problem.

3. Conferences were held with city school superintendents, with directors of school housing, with professors of education and with school architects.

4. From these readings and conferences the questionnaire shown in Table I was evolved.

5. Evaluated answers were received from fifty-nine school men, that is, answers whose items' weight totaled 1,000 points. Table II is a classified list of those answers. In addition to those answers, suggestions and questions were sent by those who did not fill in the questionnaire with items' weight totaling 1,000 points.

6. From these questionnaires the resultant weight—or score card—was evolved. This summation will be described later in detail.

7. Only research that has a direct bearing on the sites for new school buildings was considered in this study.

In this article four tables are included. Table I is a copy of a questionnaire. The paragraph introducing the questionnaire tells the story. Table II shows the classification of answers to the questionnaire. Table III is the summation of the number of points given each item. It will be noted that there is a range of from nineteen to eighty points. "Skyline" received only nineteen points, while "trend of population," and "sanitary and healthful environment," received eighty points each. The items under "accessibility" totaled 287 points. The items under "environment" totaled 341. The "soil and drainage" items were given only 99 points weight, while 273 points were given to "general" which consisted of seven items.

The Ranking of the Various Items

Table IV is interesting in that it shows the item rank. It may be worth while to point out several features of this figure. The "trend of population" and "sanitary and healthful" items tied for first rank with "size of site," coming next. There seems to be a demand for larger school sites. It is interesting to note that the "economical" item did not rank high. This is a good sign. Too many sites have been selected with only one idea in view—the most economical plot of ground.

"Soil and drainage" as a general head did not rank high. This is readily understood because most of our cities to-day have good drainage and are well protected by state laws and local ordinances in these features.

That there is wide variance in the matter of size of site is shown in Fig. 1. The large eastern cities have 11 square feet per pupil, while some western cities have 176 square feet per pupil. The minimum requirement is given as 100 square feet.

This, however, is perhaps rather large, since we are somewhat hemmed in in our cities in the matter of securing large sites. Then, too, our gymnasiums have been a great help in instances where a large site could not be obtained without sacrificing many other items.

The general discussion in this article will deal with the items that treat of the selection of the

a school must be located so as to make it possible for the greatest number to be educated with the greatest convenience and with the highest percentage of efficiency.

The city of Cleveland bases accessibility and usability on a fifty-year building life. Travel distance, central location and growth are considered. Rochester, N. Y., bases accessibility on a seven-

TABLE I—THE QUESTIONNAIRE SUMMATION CARD TO BE USED AS AN AID IN SELECTING CITY SCHOOL SITES

Dear Co-worker:

Will you please help us weight the items that should be taken into consideration when a site is selected for a city school building. If you see fit, we should be pleased to have you give the number of points you think each item deserves. The grand total should be 1,000. If you think that more items should be included, or that some of the items are too unimportant to merit a place on the card, please place the changes at the bottom of the sheet, as well as any other suggestions you care to make.

Very cordially yours,

SUMMATION CARD

1. Accessibility

- | | |
|-------------------------------------|-------|
| 1. Geographical center | _____ |
| 2. Population group or center | _____ |
| 3. Trend of population | _____ |
| 4. Transportation facilities | _____ |
| 5. | _____ |

2. Environment

- | | |
|--|-------|
| 1. Free from unpleasant odors | _____ |
| 2. Free from disturbing influences | _____ |
| 3. Free from immoral influences | _____ |
| 4. Free from hazards | _____ |
| 5. Sanitary and healthful | _____ |
| 6. Attractive | _____ |
| 7. | _____ |

3. Soil

- | | |
|--|-------|
| 1. Permeable and dry | _____ |
| 2. Free from organic matter | _____ |
| 3. Free from artificial construction | _____ |
| 4. | _____ |

4. General

- | | |
|--|-------|
| 1. Satisfaction of patrons | _____ |
| 2. Economical | _____ |
| 3. Contour for buildings and grounds | _____ |
| 4. Skyline | _____ |
| 5. Size | _____ |
| 6. Shape or form | _____ |
| 7. Esthetics | _____ |
| 8. | _____ |

1,000

site for a school planned for a city district.

In numerous cases in this study the papers and letters sent in answer to the questionnaire have been quoted at length. The quotations are meaningful.

Accessibility: This item has several contributing parts—geographical center, population center or group, trend of population or future growth and transportation facilities or site convenience regarding ease of attendance.

In order to reach the highest point of efficiency

ty-five year period. It is recognized that the population growth through this time cannot always be estimated and that an excess growth can be provided for through an extension to the school house.

The site should be as central as possible to the pupils it serves. If it is a high school, it should be convenient to its contributing elementary school. If it is an elementary school, it should be within short walking distance of the majority of the pupils.

TABLE II—CLASSIFICATION OF ANSWERS TO THE QUESTIONNAIRE IN TABLE I

No.	Classification of Answers.
22	Cities—100,000 and over
19	Cities— 30,000-100,000
7	Cities— 10,000-30,000
1	Cities— 5,000-10,000
9	Professors of education
1	U. S. Office of Education
59	Total Answers

In the St. Paul Survey by G. D. Strayer and N. L. Engelhardt, the view was given that the site should be a central one if most of the other items could be reasonably satisfied. The site also should provide for the probable expansion of the district. M. D. Jones, Cleveland, in his report to the board of education on the building needs for the Moulton-Prescott-Almira District, emphasizes that few of the kindergarten and first grade pupils should be required to walk more than ten minutes. A building for elementary school pupils should be within easy walking distance for the pupils. From Denver, Colo., the assistant superintendent of schools, H. W. Anderson, writes, "Elementary schools should be in walking distance of all the children they serve—three-eighths to one-half mile radius." George A. Davis, president, board of education, Grand Rapids, Mich., says, "In our city we do not take into consideration transportation since our new buildings do not require pri-

TABLE IV—ITEM RANK FOR AID IN SELECTING CITY SCHOOL SITES

1. Accessibility	Rank
1. Geographical center	5
2. Population group or center	4
3. Trend of population	1
4. Transportation facilities	6
2. Environment	
1. Free from unpleasant odors	11
2. Free from disturbing influences	9
3. Free from immoral influences	7
4. Free from hazards	8
5. Sanitary and healthful	1
6. Attractive	13
3. Soil and Drainage	
1. Permeable and dry	11
2. Free from organic matter	17
3. Free from artificial construction	18
4. General	
1. Satisfaction of patrons	16
2. Economical	15
3. Contour for buildings and grounds	13
4. Skyline	20
5. Size	3
6. Shape or form	10
7. Esthetics	19

mary children to walk more than half a mile. High school pupils walk a greater distance."

The geographical center, then, must be kept in mind when sites are chosen for new buildings. It must be remembered, however, that certain outlying villages may be annexed within the next twenty years. The chances that the geographical center may be changed within the next twenty years may be reasonably checked by referring to the zoning laws, to the type of population and also to such features as seemingly natural barriers.

TABLE III—THE SUMMATION CARD FOR HELP IN SELECTING CITY SCHOOL SITES

1. Accessibility	Points
1. Geographical center	68
2. Population group or center	72
3. Trend of population	80
4. Transportation facilities	67
Total	287
2. Environment	
1. Free from unpleasant odors	41
2. Free from disturbing influences	57
3. Free from immoral influences	63
4. Free from hazards	62
5. Sanitary and healthful	80
6. Attractive	38
Total	341
3. Soil and Drainage	
1. Permeable and dry	41
2. Free from organic matter	32
3. Free from artificial construction	26
Total	99
4. General	
1. Satisfaction of patrons	36
2. Economical	37
3. Contour for buildings and grounds	38
4. Skyline	19
5. Size	76
6. Shape or form	45
7. Esthetics	22
Total	273
GRAND TOTAL	1,000

Homer Davis, assistant in administrative research, Chicago schools, says, "I would give blank points, assuming that the territory within the boundaries is to be fully occupied for no other than residential purposes." Following out this idea in regard to the geographical center, if the territory so designated is already heavily populated and will in all probability continue to be so, the geographical and population centers will nearly coincide.

School men are settled on the fact that the pupils in the first six grades should walk to and from school and that the distance, except in extreme cases, should not exceed half a mile. For



This school and the one pictured on the opposite page present a striking example of the good and bad in selection of a school site. This building has on two sides manufacturing plants and on the others a car line and a congested highway. It has only several hundred square feet of playground space.

pupils in junior high schools, the distance should not exceed a mile. Senior high school pupils should not have to walk more than a mile and a half, or else the school should be convenient to street car lines if the high school is to serve a large area.

The National Education Association has issued a bulletin⁵ giving these requirements for travel distance: Elementary schools should have a radius of one-half mile to three-fourths mile; the junior high school, one and one-fourth miles to one and one-half miles; the senior high school, one and one-half miles to two miles. A warning, however, is sounded in the survey made at St. Joseph, Mo.,⁶ concerning a situation that is quite common in many cities—schoolhouse sites too near each other. This problem, however, will be solved if the school buildings are built to accommodate more pupils and if the radiuses suggested by the National Education Association are kept in mind.

An important consideration in choosing a site is its central location with regard to the school population. The method of finding the population center needs little or no explanation. In several of the leading cities it is computed with mathematical accuracy. The method of finding the population center is explained fully by G. E. Irons⁷ and Fred Engelhardt.⁸

Obtaining Reliable Information

In some cities complete reliable information through the school media cannot be had on the school population. C. B. Glenn, superintendent of schools, Birmingham, Ala., offers several excellent sources of information based on accurate data: "In many cases estimates are already available, having been prepared at great expense by public service corporations that are looking several years into the future. The commercial sur-

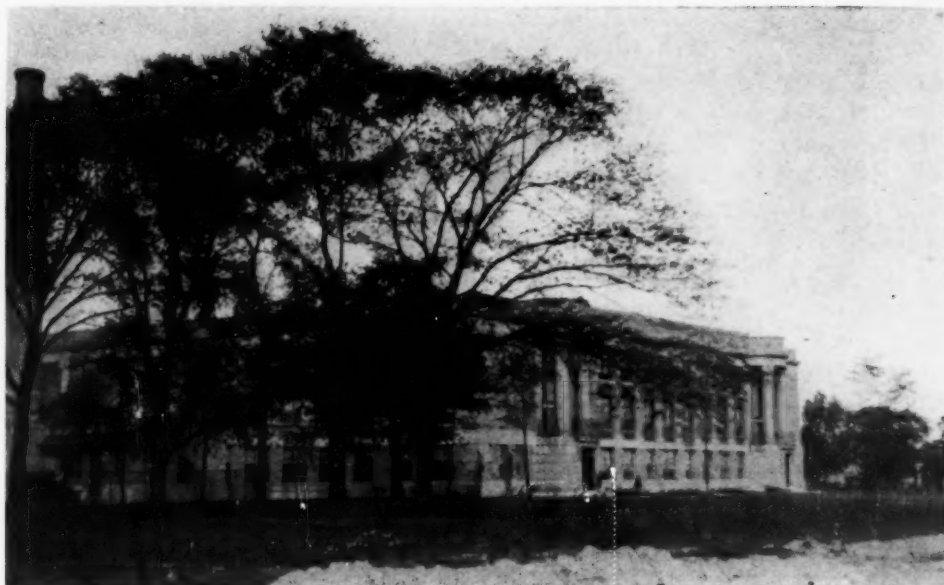
veys by a large telephone company are among the most reliable estimates referred to. Other estimates are possible through data collected by the United States Census Bureau. These may be obtained from the director. In some cities, and especially in Birmingham, the distribution of the school population is known through the school census enumeration, by subdivided areas or school districts, and plotted on school population maps. Each successive school census furnishes additional data and corroboration of or corrections to previous estimates." This applies in part to the item, "trend of population," but it still has much to do with present population when there is a scarcity of data in the office of the board of education.

What Plan Will Be Most Serviceable?

In some school districts, there are parochial and private schools. If they are not in the school district under scrutiny, they may be in a near-by district that draws from it. It must be remembered that a good public school will sometimes draw from these two types of schools if it is more convenient and has a better type of instruction. Not only should attention be given the enrollment of schools other than public schools, but a careful check should be made of those children of school age who are not in school. If there is a proposed change in educational legislation with the probability of a stricter enforcement of the new law, it will be necessary for these things to be read into the data.

In some school districts, there will be several groups of settlement. The center of population in this case must determine the location of the site, subject of course to future growth. The location of the special high school, however, rests largely on the transportation facilities. Of course when

A junior high school, located in the same city as the school pictured on the opposite page, is situated on a ten acre site in a district in which more land is available if necessary and which can be bought at a reasonable price. It provides accommodation for more than 1,000 pupils.



one or two high schools offer varied courses, the center of population must be considered seriously. The main consideration should be the question of what plan will be most serviceable to all. With the many changes in courses of study and with the advances in invention, the future demands, if too much weight is given them, will distort the plan.

Reckoning the Trend of Population

Many sources can be used to check the trend of population. By consulting the past school enrollments, the percentage of growth for a period of years can be computed. This method is now in vogue and furnishes fairly reliable reckoning in cases where the residential section or district is built up. Even then, there is a chance in the ensuing years that apartment hotels and business houses will come in. The zoning laws will give school officials a fairly satisfactory guide in this matter of future uses of the school district.

In districts that are but partially developed many problems face the department of buildings. A study should be made of the real estate restrictions, the city zoning laws, if any, the industrial tendencies, the natural conditions or barriers that might affect growth and the type of population. Private and parochial schools should also be studied as well as the probable future construction of such schools. The holding power of the public schools, junior and senior, should be studied.

Cleveland uses the telephone company surveys in checking population tendencies. The department of school housing in Cleveland allows 11 per cent of the future population for the elementary division and 3 per cent for the high school division. When a count of lots is made, usually about

five persons are figured per lot in purely residential sections. In the survey made at Cleveland Heights, Ohio,⁹ the data on the proposed subways, and on the water department estimates, as well as the telephone system figures, were used to anticipate future school population.

P. R. Stevenson¹⁰ in his survey of Marietta, Ohio, made use of the population studies of the United States Census Bureau, consulting also the birth certificates. L. M. Pratt, secretary, board of education, Pasadena, Calif., says, "Locations with probable attendance zones shall be centered with regard to the ultimate saturation of the attendance area rather than with regard to the present residential distribution."

How Far Should Pupils Walk?

Transportation facilities have to do more with the high school enrollment than with the elementary school enrollment, since most educators are agreed that the latter class should not ride and that, except in rare cases, they should not walk more than half a mile. Because of this idea, site convenience should be included when an elementary site is being chosen.

Accessibility to tentative sites by car line should be made the subject of a special study.¹¹ Running time and crosstown sections should be closely checked on points that represent sections that are farthest from the site in all directions. Not only should present car service be checked but also probable expansion of such service, including bus transportation. When checking transportation service it is well to bear in mind this question: Are the majority of the pupils traveling with or against business traffic? There would be probably one minor advantage against the many major disadvantages of travel with the business traffic,

and that would be the aid derived from private transportation in cases where parents employed "uptown" could take their children to and from school on their way to and from work.

Environment: The surroundings or the neighborhood of the site must be above suspicion if the major aim of education is effective citizenship in its broader sense. Teachers cannot be expected to educate pupils properly if they are surrounded by vice, unhealthful conditions, disturbing influences, death hazards, ramshackle buildings and drab colors. It is possible, perhaps, to bring a rather forlorn looking site up to standard, but it is a hard and tedious process to reform and make anew a neighborhood that is below the standard.

A Close Survey Is Necessary

The neighborhood should be free from constantly recurring unpleasant odors from factories, decaying soils, stables, slaughter houses, sewage and polluted rivers. It is possible no doubt to do away with the worst of these by legal action, but that process is sometimes costly and may not always be successful. If the proposed site is to be permanent then remedial measures will have to be used. A. R. Hill of the San Jose schools, San Jose, Calif., suggests that the building can be so orientated that the odors can be partially kept from the main part of the building.

Future conditions should be scanned by examining the zoning laws. If no satisfactory zoning laws exist, a close survey of the land in the vicinity of the tentative site should be made.

To have a site free from disturbing and distracting influences will make it easier for the pupils to study without external interruption and to hear what is being discussed in the classroom. In many classrooms, the teacher often has to ask the pupils to wait until a train has passed or until some loud noise has abated. This condition is a waste of time. A school site should be bounded by at least two quiet streets to allow for orientation. Not only is there a need for a zone of safety but there is need also for a zone of quiet. Some attention to the zoning laws may help solve the problem. Not only are pupils disturbed by noises but they are disturbed by distracting influences that tend to hinder the good work of the school. Under this grouping would come hospitals, cemeteries and baseball parks.

A number of authorities, keenly aware of these disturbing and distracting influences, offer remedial suggestions. H. C. Eicles¹² thinks that it is important that we get away from the rattle of vehicles, the shriek of whistles and the rumble of machinery. The National Education Associa-

tion in its bulletin on "Schoolhouse Planning and Construction" stresses the importance of having a site that is free from noise. Indiana and Michigan have rulings that no school site shall be nearer than 500 feet from a steam railroad. F. B. Dresslar¹³ in his address at the National Education Association, 1915, stated that he could name scores of buildings in which one-fourth of the time spent therein was wasted, due to outside noises. In the Cleveland survey¹⁴ of 1916 suggestions were made that the car tracks be greased and that brick and stone be replaced by asphalt.

It is undesirable, to say the least, to place a new schoolhouse in a community in which there exists a known lax moral condition that seems to be beyond the reach of the law.

Generally there are certain hazards which cannot always be eliminated but which can be fairly well guarded against. In choosing the site, several hazards must be avoided—railway crossings and street car lines, heavy traffic highways, proximity to fire engine houses and carelessly fenced railway lines that cut the general line of school traffic. Railway crossings usually have a watchman, but even then there is grave danger. Dangerous street crossings can be safeguarded by traffic policemen, and legal action can eliminate carelessly fenced railway lines. These factors, however, present decided problems, and a site that has these detrimental features is far from being perfect. Another danger is the nearness of the school to inflammable and ramshackle buildings and to factories that make or house explosives. In mining districts, a proper surface support is a necessity.

Natural Hazards to Be Considered

Harmful factors of a natural rather than an artificial source are proximity to swift flowing and deep streams, to overflowing streams, to near-by mountains (danger of snowslides), to cliffs and to ravines. The dangers of these natural hazards may seem to be overestimated. Perhaps for a large congested city they are, but these hazards do come into play prominently in a great many sections.

The health of the child should be safeguarded by all possible means. Attention should be given to the death rate in the neighborhood and also to the causes of death. If there seems to be a prevalence of diseases, this should be checked for cause and if no satisfactory reason can be found, except general apathy in the locality as to good sanitation, the school authorities should look elsewhere for a school site. The National Education Association in its report on "Schoolhouse Planning and Construction" states that there should be

facilities for providing an abundance of pure air.

Some factors that perhaps can be eradicated are nearness to polluted streams, to sewage systems, to swampy lands and to livery stables. Poor drainage and tangible insanitation must be avoided. Assurance should be had, however, that the neighborhood can be rid of these deleterious factors before the site is selected definitely.

Some cities buy sites without any regard to the desirability of environment. Baltimore¹⁵ has a school site that is in the shadow of the penitentiary. A neighborhood should be selected that does more than appeal to the esthetic sense. A school district should be attractive for utilitarian purposes as well.

The Value of an Attractive Site

M. D. Jones,¹⁶ Cleveland, in telling of the desirability of a certain site for high school building goes into interesting discourse as to the reasons why this certain site should be selected on the basis of attractiveness. The following paragraph sums up his plea:

"We believe it will be generally agreed that the physical character of environment has a profound influence upon every person with any sensibility whatever. In other words, the atmosphere of decay and even of squalor that surrounds some of our schools is depressing and dispiriting. A neighborhood of substantial and well designed buildings has exactly the opposite effect. The comparatively high character of the apartment buildings springing up in the John Hay neighborhood is believed to be a feature of real value in this respect. Instead of deteriorating, and having its old, dirty and rundown homes taken over by the unfortunates of various races, the John Hay neighborhood is going in the other direction. The presence of the high school will undoubtedly stimulate this tendency."

Soil and Drainage: With the growing sentiment to make the schoolhouse site function for more purposes than it has functioned in years past, the site now is more than a spot of ground on which to set a school building. It should be used for a playground, it should have a beautiful campus, it should have an athletic field, if it is a high school, it should have garden plats and it should in some instances serve for a summer park. Such sites are common the country over and are becoming even more so. Such being the case, the soil is an important factor. H. C. Eicles¹⁷ places soil as one of the five important things connected with choosing of a site.

To have a site that is permeable and dry, there must be enough height to keep the adjacent surface and subsoil drainage out. This will in most

cases mean that the desirable slope is away from the building. F. B. Dresslar¹⁸ states, "A site should never be selected where it is impossible to get a free and easy outlet for a drain through which the water line about the building may be kept always below the foundation and basement floors." The soil should be sandy loam, since this will permit good drainage and will be fertile.

Although we have rid ourselves of the old notions about "ground damp," it is still recognized by health experts that certain organic matters in the soil give off offensive and unhealthful odors. If the ground was formerly a swamp and has been reclaimed, it may be necessary to construct at considerable expense the proper elevation to make the plat suitable for schoolhouses and playgrounds that will not be injurious to the health of the pupils.

Not many of the sites will have the matter of artificial construction to consider, yet at times it will occur and will present serious problems. If the proposed site is a filled-in plat of ground or if parts of the site are filled in, the nature of the filled-in soil should be analyzed and a check should also be made of other materials of solid nature that might have been used to bring the site to its present level. If this checking is not done, large excavation costs may be necessary in order to secure a suitable foundation. In addition to the cost item, which is not slight, there is the health item which must be considered. Made land is sometimes full of physical contamination, according to H. L. Smith, Indiana.¹⁹ In tidewater regions this item should be studied carefully as it has been in Portsmouth, Va.²⁰

Satisfying the School Patrons

General: If a continuous rather than a spasmodic leadership has been given the public, then the patrons will probably concur with the selection made by the board of education. Mr. Dresslar feels that a well informed public opinion is needed if the best site is to win favor. It is important that the patrons be with the school since they sometimes exercise their royal prerogative at elections. Too often the board has shown a lack of business acumen that shatters the faith of the taxpayers. Another serious fault has been the "public be damned" policy. Boards have sometimes failed to let the public in. This attitude should be relegated to the junk pile. Permitting the public to know just what is going on may temporarily block some feasible school program, but this policy will win in the majority of cases and will result in lasting rather than in intermittent school support.

Not only must the initial cost of the site be

considered, but also the amount it will cost to place the site in condition for school purposes. Then, too, there will be the probable cost of additional land within the next twenty-five years. A site should be purchased early, or before the school district has been built up. The slogan, "Buy Early" seems as good here as it is in the commercial mart.

The report from Rochester, N. Y., covers the subject of economy rather comprehensively. The following paragraph is a quotation from the report: "Sites should be purchased before the property in the immediate vicinity has been subdivided or developed. This permits a wider range of choice and results in obtaining a large, desirable site at a low price, inasmuch as these would be bought on a basis of acreage rather than on a basis of individual lots if the property had been subdivided. This, of course, involves a carefully detailed study in location. Some error might occur, but any site purchased and later found undesirable for a school building might easily be sold at a purchase cost plus carrying charges because of the enhancement in value."

A. R. Hill, San Jose, Calif., says, "Economy is a changing value and increases in importance as the district's ability to pay decreases."

W. W. Theisen, assistant superintendent of schools, Milwaukee, gives some timely thoughts in this connection: ease of acquisition, legal procedure necessary if owner is unwilling to sell, and the development of the plat. That more than ordinary attention should be given to the title or deed is the admonition given by H. L. Smith, Indiana.

The contour or topography of the proposed site should be considered in relation to the use of the proposed buildings and the other sites, according to Dean J. L. Manahan of the University of Virginia.

A Contour Advantageous to the School

Mr. Hill, San Jose, Calif., offers an interesting and timely paragraph relative to contour: "Contour can have a meaning only when it interferes with the use of the grounds for school purposes. As long as there is sufficient level playground, a side hill site is often preferable to a flat site. The new high school at Santa Barbara is an example of a contour advantageous to the school in all respects. The sloping circling bank in front was easily and cheaply remade into a natural amphitheater and stadium. The acute drop at a part of the rear of the building provided for light in about half of the basement rooms, a distinct advantage."

In numerous sections of the United States where the entire city is level, this factor would have no bearing on the site selection, and the item

on "contour" would be neutral in its effect rather than positive or negative.

If, in the selection of sites, the skyline has not been considered in a congested city district or in a city where nature has to be reckoned with, it will mean careful planning on the part of the architect to make a judicious use of the site so that the school buildings will have the sunlight during school hours.

"At Least Six Hours of Sunshine"

The schoolhouse should have at least six hours of sunshine every day. Mr. Dresslar²¹ says there should also be ample sunshine for the playground. The height and location of the proposed building on the tentative site will have to be considered, as well as the factors that are conducive to a poor skyline, such as high buildings, trees, hills and mountains. Strayer and Engelhardt²² hold that there should be a thirty-degree angle, and Mr. Dresslar says, "A bit of sky should be seen by each pupil while at his desk."

The exact size of a site seems to be a debatable point. It is generally agreed that a minimum should be set for the various types of schools—senior high school, junior high school and elementary school. Most school men feel that it is urgent that minimum standards be met at least for the junior high schools and for the elementary schools, if not always for the senior high schools.

Here are some of the various standards set by boards of education: Pasadena, Calif., has a minimum for its elementary schools of five acres, for junior high schools of fifteen acres and for senior high schools of twenty acres. In San Jose, Calif., 272 square feet is allotted each grammar school pupil for playground purposes and for gardening; for junior high schools up to 2,000 enrollment, 435 square feet is allowed per pupil, which means that for 1,000 pupils there should be at least six acres—barely room for two baseball diamonds with the accompanying sports; for senior high schools of a thousand or more enrollment, there should be at least twelve acres. The Strayer-Engelhardt surveys recommend that there should be, exclusive of athletic field and gardens, a minimum space of 100 square feet per pupil. In the city of Cleveland there is a standard requirement of seventy square feet of playground space per pupil, excluding the building.

In senior and junior high schools²³ it is necessary that the site be large enough to have satisfactory room for a football gridiron, several baseball diamonds, a well set campus and ample space for correct schoolhouse orientation. If the site of the senior high school happens to be in a congested business district or where land values are

prohibitive, the size of the site would then depend on the size of the building and on the proper orientation of the building, with provisions made elsewhere for the athletic field.

How Large Should the Playground Be?

An extensive study²⁴ was made by the American City Bureau on playground space per pupil for 3,600,000 school children. It was found that the median for 429 cities spread through the United States was a little less than six feet square. Some idea of this serious problem, the lack of playground space, is given in Fig. 1. This report closes the survey of playground size with this sentence: "The playground is as necessary a part of the equipment for the public school as is the classroom." The 1920-21 Baltimore²⁵ report points out that the greatest neglect in schoolhouse

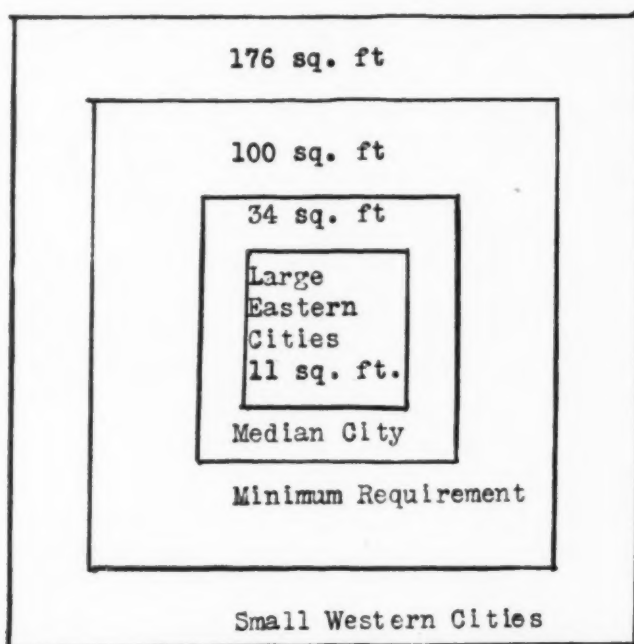


Fig. 1. A survey of the study made by the American City Bureau on playground space per pupil in 429 cities shows the number of square feet of playground space for each child. In this figure, the scale is $\frac{1}{4}$ inch to 1 foot.

planning is the lack of playground space.

This subject has been much written about, but little has been done. The National Education Association in the 1925 report on "Schoolhouse Planning and Construction," gives adequate size as one of the important items. Adequate size means space enough to provide for the building and for future extension, to provide a proper setting removed from the streets and large enough for outdoor games, school gardens and lawns. Judging from the reports and articles that are appearing daily, school authorities are frowning on high school sites that do not provide room for an athletic field for every-day use in physical

education. One argument generally offered is cost. In the "Report on Reorganization and Housing Program" for San Francisco, is this sentence: "Where land is expensive, wealth is plentiful."

That the shape of the site under consideration is perhaps of little or no consequence unless it interferes with some educational function, is the thought sent from San Jose, Calif. A site should be rated low that makes impossible correct orientation, that does not permit proper display of the building and that causes the playground to have an unnatural shape for the ordinary games or causes the building and playgrounds to be so placed that they are open to disturbing and distracting influences. A rectangular site that has a ratio of two or three²⁶ is removed from the shoe string type as well as the square type. A site of this shape will generally give the maximum recreational and architectural effect.

The beauty of the site must not be overlooked. Component parts may be trees and shrubs planted or natural, a small lake or brook or an impressive natural setting. Another thing to remember is: How can the proposed site be made beautiful? The real test for appeal to the esthetic is what the site can be made five years from the time of its selection. Dutton and Snedden²⁷ are quoted as follows: "... seek sites that lend themselves easily to landscape gardening and permit noble approaches and beautiful surroundings."

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Is the School Laboratory a Dangerous Fire Hazard?

Exhaustive tests conducted by the United States Bureau of Standards show that ordinary equipment used in school buildings does not constitute an unwarranted risk

BY A. C. MONAHAN, FORMERLY SPECIALIST IN SCHOOL ADMINISTRATION, U. S. BUREAU OF EDUCATION

WHAT actual danger from fire is there in the school laboratory? Is it great enough to constitute a "fire hazard"?

The answer must come from the experiences of schools and colleges throughout the United States and elsewhere. I have made rather an extensive inquiry and consulted certain fire underwriting associations and the answer is emphatically "No." The fires that have originated in school laboratories due to the fact that the room was used for laboratory purposes are few indeed, and all have been fires of minor importance as far as I have been able to learn.

Persons who seem to believe that school labo-



In a test made by the Bureau of Standards, a Bunsen burner was overturned on a birch table top and after eighteen hours had burned only a small hole.

ratories constitute a fire hazard have stated that the laboratories have gas burners, that combustible chemicals are stored in them and that explosive gases are made in them. As a matter of fact the gas burners are no more dangerous than those in the cooking room. The amount of combustible chemicals is small and the explosive gases, when made, exist in such small quantities that they have proved harmless in this respect.

For the past year or so there has been a certain amount of what may be called propaganda that would lead one to believe that the school laboratory is a serious fire hazard unless the laboratory is made fireproof throughout. It has influenced

school boards to curtail the laboratory sciences in some cases and in others it has led them to spend a lot of money on unnecessary fireproofing, leaving inadequate funds available for apparatus and equipment. This fireproofing as recommended by the propagandists consists in the use of cement floors, fireproof partition walls and doors and all metal furniture and shelves. It means a large increase in cost with no particular returns in safety if we can trust the history of fires in many thousands of nonfireproof laboratories in the United States and in other countries.

One particular phase of this subject has just been settled by tests made by the U. S. Bureau of Standards. These tests have to do with the combustibility of the built-up wood tops put on laboratory furniture by the well known factories specializing in the manufacture of this particular product.

Why Tests Were Made

A year ago the fire marshal of the District of Columbia believed that wood tops in a laboratory in which Bunsen burners were used constituted a serious fire hazard. That was his personal opinion formed without making any inquiry into the matter. He therefore issued instructions to the board of education to replace all such wood tops with "fireproof" material. The board objected to



A lighted Bunsen burner was overturned near a heap of paper and books. Though the table top was charred and partly burned, the flames spread no further.

doing this as the members and the school officials thought it unnecessary and an uncalled for outlay of funds badly needed for other purposes. The protest of the board met with no response from the fire marshal, so the board asked him to have the United States Bureau of Standards make tests to determine whether or not the use of these wood tops did constitute a fire hazard. This was done.

For the tests the board of education provided for the bureau a laboratory table, 4 by 6 feet in size, made by a well known laboratory furniture company and used in a high school for fifteen years. This table was designed for the use of four pupils working at one time. It was constructed of oak but with a built-up top of narrow strips of hard birch, grooved and glued, and treated with a standard black acid-resisting finish. The top was $1\frac{5}{8}$ inches thick.

How Test Was Carried Out

On this table top the bureau men turned over a lighted Bunsen burner so that the flame extended along the grain and directly over one of the glued joints. The burner used was larger than the ordinary laboratory size. It gave a 10-inch oxidizing flame and a 3-inch reducing cone. Three minutes after the flame was turned on the wood the wax in the finish began to sizzle; at 7 minutes the wood itself began to char at the tip of the reducing cone; after 1 hour and 29 minutes burning had appeared on the underside of the top; at 2 hours and 30 minutes the charring had stopped, the flame having burned out a hole 10 inches long and $3\frac{1}{2}$ inches wide on the top surface of the wood and approximately 1 inch wide on the under side. This was all that happened. There was no burning except in immediate contact or almost immediate contact with the flame, and all burning and charring ceased as soon as the wood was consumed immediately under the flame. There was no spreading of the fire either along the table or into the drawers underneath.

The test was repeated with the drawer under the burner removed, as it was thought that the drawer might have prevented a free circulation of air to assist the burning. The results were the same except that the fire came through the top in 14 minutes less time than in the first test. Of course this was not due to the removal of the drawer. The size of the opening was practically the same. The lighted burner was left in the exact position in which it lay while charring the hole through the top for 18 hours and 50 minutes. No further charring took place.

Another test was made, with 2 pounds of loose paper and 10 pounds of cloth-bound books in a

heap on one corner of the table. The same lighted burner was turned over on its side, with the flame extending into this paper. The mass of paper started to burn immediately and the flame came through the table top in 51 minutes. After 2 hours and 14 minutes a corner of the table about 2 feet square collapsed and left the flame suspended in the air. The drawer slide under the corner had been burned through and the rail of the table charred. However all burning ceased a few moments after the corner collapsed and the flame spread no farther. There was no danger of a disastrous fire unless the floor had been covered with combustible material under the table where the collapsed portion of the table fell.

Still another test was made with all 16 drawers under the table filled with loose paper. The lighted burner was turned over as in the other instances and burned through the top in 1 hour and 18 minutes. Almost immediately the paper directly under the burned out hole, took fire and the flames spread through the side to other paper-filled drawers. Finally the entire table was consumed as one would expect under the conditions. This, of course, is not a condition found in a laboratory. The drawers on a laboratory table are provided for the storage of apparatus and supplies and seldom contain paper or combustible material. Notebooks and texts are sometimes laid on the top of the table by a pupil when working, so the previous test is under a condition that is sometimes found. The test shows, however, that even if a fire should occur there is little likelihood of its being serious. One factor that makes the risk much less is the slowness with which burning takes place.

Wooden Tops Not a Fire Hazard

This is true in the last test mentioned where all sixteen drawers were filled with loose paper. It was over an hour and a quarter before the top was burned through and the paper exposed to the flame. It was 2 hours and 28 minutes before the fire had progressed enough to cause the legs of the table to collapse, letting the top fall to the floor. Such slow progress in a fire makes the fire hazard inconsiderable.

From these tests one conclusion can be drawn, that wood tops and wood furniture in a school laboratory do not constitute a fire hazard of any importance and that there is no need of incurring the extra expense of making the laboratory "fire-proof." Of course instructors must use precautions to see that combustible materials are not left lying around the laboratory, just as the home economics teacher must use the same care in her cooking room and the janitor in his workroom.

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Editorials

Football Is King

JUST a year ago attention was called in these columns to the monopolistic position of athletics, particularly football, in our secondary schools and colleges. We said that there was danger of the athletic side shows playing a larger rôle in education than the main circus. We said that football, basket ball and to some extent every other branch of athletics had become commercialized and highly specialized, in spirit if not technically.

Now comes the Carnegie Foundation for the Advancement of Teaching and shows in a large volume based on the results of three years' thoroughgoing nationwide investigation that all the charges we brought against athletic excess were well founded. Athletes, especially footballists, are subsidized in one form or another and under one guise or another in all but a few of the higher institutions. Enormous sums of money are being expended in these institutions for stadiums and athletic requirements and accoutrements of various sorts. Athletic coaches receive salaries far in excess of those received by distinguished teachers who are doing the work for which, theoretically, colleges were established and are being maintained. Athletes are permitted to "get by" scholastically on a lower level of achievement than other students. A good athlete receives a great deal more credit, distinction and applause than a good scholar, so that a prize is put upon muscles rather than upon brains.

High schools, teachers colleges and even grammar schools are falling victims to the athletic plague. School principals and college presidents say that the only way they can maintain the prestige of their respective institutions is to make elaborate provision for competitive athletics. In order to cover up their evil deeds, they say that American youth is in need of physical education and the best way to acquire and to preserve physical vigor is through athletics. This claim is absurd. Only a small proportion of the student body participates in athletics. Everything is sacrificed for competitive teams. The men, and just now the women, who are selected for the teams are the ones who least need physical development. But the gymnasiums, the stadiums, and athletic training grounds are all devoted to these physically superior individuals. Nine-tenths of the

students in all these institutions—secondary schools, normal schools, colleges and universities—receive their physical education principally by standing on the sidelines or sitting on the bleachers and hurrahing for their teams.

It is claimed that athletics develop good sportsmanship—that football and basket ball train teams and fans to play the game of life fairly and squarely. As these lines are being written, reports come of riots on football fields between the students of competing institutions. The newspapers are telling stories of drunken orgies of students after football games, particularly in New York, Chicago and Philadelphia, but also in a lesser degree in smaller communities. It would be closer to fact to say that these intercollegiate competitive contests unfit members of teams and fans alike for daily life in America than to say that they train young persons in self-restraint, fair play and desirable attributes of social intercourse.

The Carnegie report will give strength and encouragement to those who are trying to keep competitive athletics within reasonable bounds. The commercialization of athletics and the deification of athletic heroes must cease, unless secondary schools and colleges wish to abandon largely or completely the education of youth for the training of gladiators.

The Rise of Women in Educational Administration

ANYONE whose educational memory extends back for two decades will agree that the status of women in educational administration has undergone a metamorphosis, so to speak. Twenty years ago one never heard it suggested that a woman should be made, or if made could serve efficiently as president of the National Education Association. Not so many years ago it was first rumored that the women members of the N. E. A. thought it would be only just if there should be a feminine representative among the officers of the association. Year after year the rumor grew more widespread and insistent that women teachers were discontented because they were shut out completely from recognition in administrative positions in the National Education Association.

Then, without much warning, a woman was elected president of the N. E. A. She conducted the business of the association so smoothly and effectively that it was a revelation to a large proportion of the membership. This started a new style in the association. Women aspired to prom-

inent administrative positions and they secured them; of still greater significance is the fact that they have uniformly shown administrative ability of a high order.

The destinies of the N. E. A. are in the hands of a woman for another year. Ruth Pyrtle is a good representative of the American woman teacher. She has had experience as a teacher and as an administrator; she has a Master of Arts degree from the University of Nebraska; she is a member of the Nebraska State Board of Education; she has served as a member and as a chairman of important state and national educational committees. She is forward-looking, but at the same time she knows from what we have developed educationally so that she will not be led astray by vagaries and ephemeral educational novelties.

William McAndrew and Professor Muzzey Vindicated

WHEN the Chicago Board of Education dismissed William McAndrew on the charge that he had endorsed a textbook for use in the schools of Chicago which was subversive of American ideals and institutions, we said in these columns that the episode furnished an additional illustration of the danger to American education of political corruption in boards of education. We said that the charge against William McAndrew was absurd and that his trial was a farce.

The chief instigator of the movement against Mr. McAndrew—former Congressman John J. Gorman—has just made a confession in which he states that when he accused Mr. McAndrew he had not examined the textbook, for the endorsement of which Mr. McAndrew had been tried and dismissed. Someone else prepared the accusation against Mr. McAndrew and the author of the book, Prof. David Saville Muzzey, and Mr. Gorman signed it. Mr. Gorman says that he has now examined the book and has found nothing the matter with it. He says he thinks it is a good book to put into the hands of the young people of Chicago. But Mr. McAndrew has lost his position and the school children of Chicago have been made the victims of a despicable political deal.

Mr. Gorman did not make his confession until he was sued by Professor Muzzey for unjust charges against his book. When Mr. Gorman realized that he could be punished for the false claims that he had made, he hastened to acknowledge that he had brought charges against Mr.

McAndrew and Professor Muzzey without any knowledge of the textbook that he condemned. His political henchmen took to the woods when they saw that Mr. Gorman was in peril and left him to face the music alone.

So the farce is brought to an end. The harm has been done; the political corruptionists have attained their objective and an especially able superintendent has been set adrift at a time when his services were most needed by the school children of Chicago. Mr. Gorman and his confederates escape with a confession, which would be humiliating beyond endurance to normal men but which causes no feeling of shame in political louts. Here's hoping that William McAndrew will take advantage of what ought to be his legal rights in compelling his accusers to suffer for their villainous assault on his professional integrity, his loyalty and his efficiency as a superintendent of schools.

Scholarships for the Study of Education

THE Commonwealth Foundation is encouraging European students by means of scholarships to come to America for advanced study. An announcement has just been made to the effect that thirty scholarships have been granted to the graduates of British and colonial universities for 1929-30.

These students have been selected for their superior ability as manifested in their work in their respective universities. It is significant that out of the thirty scholarships, two were awarded to students who were interested in the study of education. Geology, physics, aerodynamics, astronomy, zoology, botany, political science, history, law, chemistry, medicine, engineering, mathematics, bibliography, music, agriculture and economics will all be pursued by one or more of these honor students from Great Britain and the colonies.

Heretofore the foundations have not granted scholarships for the study of education. It may be predicted that in the future an increasingly large number of scholarships will be awarded to capable students who will devote their time and energy completely to the study of the psychological, sociological and economic aspects of modern education. There are already sufficient accurate data pertaining to education, and certainly the subject is important enough, to justify the awarding of such scholarships to as many competent men and women as may make application for them.

Are Educational People Progressive?

AS THESE lines are being written, there is going the rounds of the daily press a story based upon the results of an investigation conducted by Doctor Harper of Teachers College, Columbia University, to the effect that educators are very conservative in respect to social, political and religious policies.

Doctor Harper made a study of the attitudes, prejudices and beliefs of a large number of educators throughout the country in respect to fundamentalism, modernism, antievolution laws, socialism, development and control of the power resources of the country, waste reduction in industry, the Monroe Doctrine, universal military training, nationalization of coal mines in the United States, "dollar diplomacy," and other matters. His study led him to the conclusion that American educators as a whole have not done and are not now doing any fundamental thinking relative to vital social, political and religious problems. Educators are "dangerously conservative," if Doctor Harper's data have any validity.

In this connection it may be remarked that conservative financiers and politicians are constantly charging university teachers with radical and even revolutionary views and activities. Hardly a day passes that someone does not say that one university or another is teaching doctrines to young men that are not in harmony with the traditions in American financial, political and social history. It is certainly not true that college teachers as a whole are "dangerously conservative." New economic, social and political propositions come from educators in colleges and possibly in public schools and not from financiers, politicians, lawyers, merchants, manufacturers, doctors or engineers.

Without having statistical data to back up the assertion, it is safe to hazard a guess that superintendents and principals of schools are not hostile to liberty of thought and conduct among their teachers in regard to religious and political questions. It is probably true that those who are administering public schools and who must have the approval of lay boards of education for all their policies cannot be dangerously radical. It may be that a considerable proportion of administrators must be publicly conservative while in reality they are in sympathy with the modifications of existing social regulations directed toward giving every individual a chance to live, to be free and to pursue happiness in his own way so long as he does not interfere with the happiness of others.

Index Numbers for School Supply Prices

School supply prices at highest level of the year during September; prices slightly downward in October and November

By HAROLD F. CLARK, PROFESSOR OF EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, AND JOHN GUY FOWLKES, PROFESSOR OF EDUCATION, UNIVERSITY OF WISCONSIN

THE final index of school supply prices for September was at the highest level of the current year. Comparing it with the September, 1928, index, an increase of 0.5 points is noted. Data that are now available indicate that a top level was reached in September and that prices for the two succeeding months, October and November, were slightly downward.

It must be remembered that the school supply index is based upon the wholesale prices of the more important commodities from which school supplies are made. The twenty-two commodities that are used in the index, go to make up 98 per cent of all instructional supplies. The complete data for September show that among the materials that go to make up the index, nine of these increased in price, four decreased in price and nine remained stationary, as compared with the prices of school supplies for the preceding month.

Conditions at present do not indicate any in-

crease in paper prices. With the general overproduction of paper in relation to both present and prospective consumption that is now in evidence, paper prices will very probably decrease.

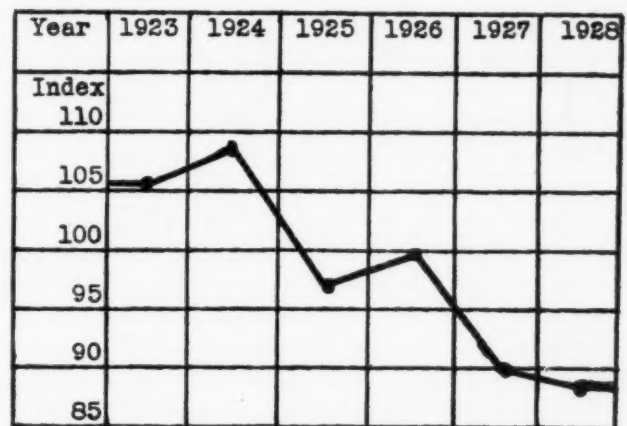


Chart 2. Annual index of the prices of instructional supplies.

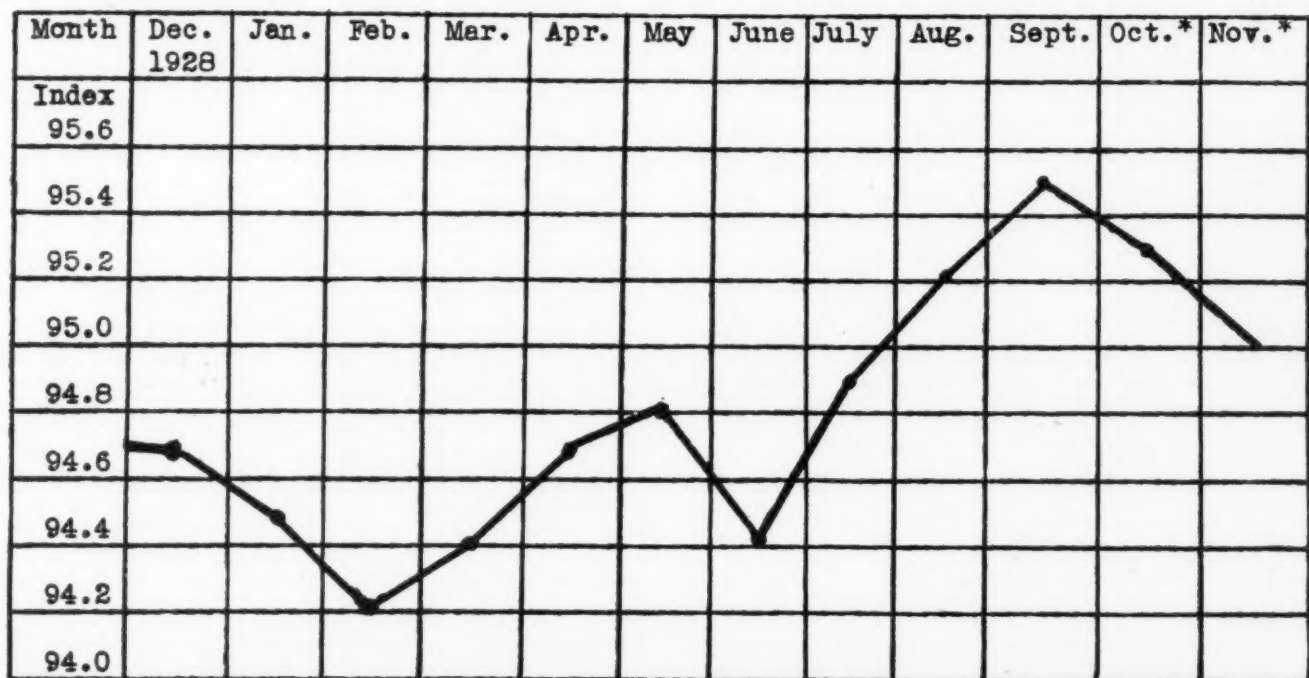


Chart 1. Monthly index of prices of instructional school supplies. *Not final.

Has Method Been Solved? What the New Books Show

Publications of the last ninety days indicate a healthy attitude toward method, despite the struggle between science and the popular market

BY ARTHUR B. MOEHLMAN, PROFESSOR OF ADMINISTRATION AND SUPERVISION, UNIVERSITY OF MICHIGAN

IN RECENT publications in the field of supervision and method it is evident that the authors are attempting to ride two horses. In other words, they are trying with considerable effort, to keep two different tendencies in consistent and logical line.

All appear to have caught the keynote of the present age, which is a dynamic rather than an academic point of view. Carrying this functional conception to the logical end tends to produce a book far in advance of average practice. Average practice and a completely scientific development, even in terms of current experimentation, are so far apart that the question of market arises immediately. The problem is how to be progressive and still remain close enough to the market of current practice. Some make the attempt gracefully and acknowledge definitely their limitations. Others claim pure objectivity that really leads to the same end. Still others, more practical or more traditional, stop at a certain point and call nonacceptable field experimentation "educational fads."

Interpretation of Modern Tendencies Needed

One of the most successful ways of elimination in education consists in attaching the label "fad" or "frill" to an activity. This dismisses it immediately from consideration, since no respectable Ph.D. or practical administrator can afford to appear infected with the virus of "faddism." It resembles very much a well known educator's definition of dogmatism. "Dogmatism is what the other man thinks and with which I do not agree." To label as "fads" and "frills" new movements with which one does not agree is a shopworn practice that educators should abandon. While such a practice is still found effective by politicians in popular harangue, its use by leaders in education hardly indicates an adult attitude.

Despite the obvious struggle between science and the popular market, the mass of literary productions of the past ninety days indicates a healthy attitude towards method. These books

point out clearly that there is a distinct need for the interpretation of modern tendencies and for the results of successful experimentation in the development of new attitudes. They indicate a questioning mind in teacher training institutions and in the field. These symptoms are welcome signs of progress. While the publications considered here are not in any sense the final word, they represent distinct lines of effort that are highly commendable.

Supervision as Others See It

Appleton apparently intends to make supervision its own particular contribution to the field. "The Supervision of Elementary Subjects," edited by William H. Burton, University of Chicago, is the seventh volume in a series on the subject of elementary supervision. The present volume is a symposium. Burton wrote the first chapter which sets forth his general theory of supervision. Compared with his earlier attempts, the current definition is a distinct advance towards a functional concept. He has not yet made the clear-cut differentiation between the administrative and the creative aspects of this activity, which has been established in advanced theory and even in a fairly complete way in isolated experimental field practice.

Successive chapters deal with the supervision of specific subjects, including arithmetic, spelling, reading, handwriting, language, geography, history, civics, nature study, music, art, industrial arts and health education. Contributors to these respective fields include: Leo J. Brueckner, Willard F. Tidyman, Laura Zirbes, Joseph S. Taylor, Walter Barnes, Henry M. Leppard, Mary G. Kely, Howard C. Hill, Elliot R. Downing, Edgar B. Gordon, Florence Williams, Frederick G. Bonser and Jesse F. Williams. Although each author was allowed individual freedom to vary from the general principles established in the integrating first chapter, there are fewer differences than one might expect. The attempt to unify and correlate the work of thirteen indi-

vidualists is a task that is no sinecure. That Burton has produced a well integrated work speaks well for his editorship and diplomacy.

The several chapters are not of equal value. They vary with the ability of the specialist presenting that particular cross section of the curriculum. They are all easily readable and some are extremely interesting. The general impression of these several fields as apparent entities, without adequate concept of integration as a whole, in terms of individual and social outcomes, might be considered a basic weakness. However, it follows closely the average concept in field practice. This is, I believe, the first attempt to bring all of these specialists within a single binding and the result should give to superintendents and principals a clearer view of these individuals, their philosophy and their practice.

"The Nature and Direction of Learning" by William H. Burton is the first of a series of three volumes from the University of Chicago which are to form an integrated series for introducing students to teaching. The development of this field has been under the direction of Professor Burton and he will, presumably, be the author or co-author of the succeeding volumes. To those who watched Burton's start in this field, the first volume of the series is not encouraging.

"The Nature and Direction of Learning"

The author admits that his attempt to develop a theory of method is an eclectic one. He tries to present the fundamental concepts of method and to correlate and possibly to integrate them. His method is primarily that of the collector. The first influence considered is classified as "neo-Herbartian." His basic material in this presentation was drawn from Frank McMurry, the late S. C. Parker and H. C. Morrison. The second major influence is the functional one and here the sources are John Dewey and W. H. Kilpatrick. These two fundamental concepts are basically different. In the first, the emphasis is placed upon teacher purpose and direction and in the second the emphasis is placed upon pupil purpose and direction. The third emphasis is upon the scientific movement derived either from experimental results or from psychological theory. The specific point of view accepted by the reader will be determined by his basic philosophy. No straddling is possible. The issue is clear-cut.

If a man is presenting the results of his own theorizing or experimentation, the product may be accepted or rejected, depending upon whether the conclusions agree with our own philosophy or whether they are convincing enough to overcome our prejudices. On the other hand, if an

author proceeds in the manner of the collector to consider what has been done by different schools of thought, it is essential that he present all points of view completely. In this instance, the author obviously follows the collector's practice but he does not present completely the functional viewpoint. He travels in and out of the broken field, carefully avoiding any definite stand but, by implication and method of presentation, subtly inclining the student towards an institutional concept.

A Study of Progressive Method

In the field of adult learning, for example, he neglects entirely the fundamental experimentation of Thorndike. In the field of functional method he overlooks entirely the actual contributions of men like Courtis, Coursault, Counts and Bode. In the experimental field he neglects completely the searching and long continued experimental practices and results of Courtis. The lesser experimenters of progressive practice are also passed by. The more closely one reads, the more convincing is the feeling that the author has started with a Parker fixation, modified by the present dominant position of Morrison and has either deliberately or through lack of knowledge passed up or treated inadequately all other institutional contributions. The first volume has all the earmarks of a house organ. As a piece of institutional writing it possesses real merit and is well done. As a scholarly presentation and interpretation of basic contributions to method, it leaves much to be desired. Superintendents should be vitally interested in this production because it is to form the basis for the training of teachers at Chicago and possibly elsewhere and, since they will use the product of this curriculum, they should be acquainted with both its good features and its limitations.

"Progressive Teaching" by A. Gordon Melvin, College of the City of New York, is an attempt to present "a clear, forceful exposition of the common basis underlying the theories of progressive method." Doctor Melvin tries to bring together within the compass of a reasonably sized book a formulation of progressive philosophy and method, developed upon the basis of a "conduct curriculum." The idea is not a new one. Patty Hill Smith and her associates at the Horace Mann School did the same thing for the kindergarten in 1923. Doctor Melvin has made the same basic error that featured the earlier publication. He has taken a product and has attempted to organize it as a basic purpose. There is no adequate analysis of life purpose. The curriculum and method of the future must be written in terms of

purpose based upon a careful analysis of life. Conduct is one of the outcomes or products. Unless one is willing to accept a fundamentally different concept of philosophy and social organization, it is difficult to see how a curriculum or comprehensive method can be built up to serve a dynamic social order on an ever changing product. There are many good points in this writing. The author's curricular analysis is interesting and it is wider than the average presentation. It is certainly worth reading, but its ultimate value is conditioned by the validity of its underlying philosophy, a weakness that has already been pointed out.

John P. Wynne, State Teachers College, Farmville, Va., has contributed a volume upon "General Method: Foundation and Application" to the Century series. Based upon current tendencies in sociology, biology and psychology, the book has specific value in teacher training programs and might be read with profit in other phases of education. Although the author does stress the scientific background of his thesis, he does not exclude the more theoretical schools of thought. Thus he is able to satisfy many of the progressives without offending the conservatives. The early chapters are devoted to a consideration of method, changes in educational objectives, methods of progressive adjustment, the nature of change and the conception of progress. The nature of a democratic social organization is well done. The last seven chapters develop the various principles upon which the author bases his achievement with respect both to general method and to special techniques. The style is not easy.

Of Value to Superintendents

"Teaching and Learning the Common Branches" by C. C. Schmidt, of the University of North Dakota, is "an exposition of the soundest and most modern methods of teaching the major subjects in the curricula of elementary schools." According to the author, the book is based upon his experience as superintendent of small schools and therefore upon intimate contact with actual classroom work. In his discussions of subject content Doctor Schmidt makes life needs rather than tradition the criteria for judgment. In part he accepts modern methodology but always with the caution of the conservative administrator rather than with the detached attitude of the real experimentalist. According to Dean Paul Klapper, of the College of the City of New York, who wrote the introduction, "Every chapter gives evidence of openmindedness to new trends and courageous exclusion of mere fads in pedagogic fashion." The question might possibly arise as

to the nature of a "fad" and the validity of the author's judgment in making the choice. Some of the newer methods in spelling and in reading that have had considerable success under sound experimental conditions are not even considered. It appears that one criterion of selection must have been degree of use, possibly, rather than the criterion of results. As a whole it is neither a poor book nor a superior product. To our mind a book on method has more validity when interpreted by a specialist in this field rather than by an administrator. On the other hand, the volume, with its scholarly limitations, is practical and will be of considerable value to superintendents and supervisors in smaller communities.

The Group Study Plan

Edward R. Maguire, a New York City junior high school principal, has written interestingly and convincingly of "The Group Study Plan" in which he develops a teaching technique based upon child participation. The keynote of this procedure is individual achievement in a social environment. As a school principal the author has seen the evils of machinery becoming an end in itself rather than a means. He has observed the weaknesses of mass education and regimentation. He is thoroughly familiar with the fundamental weaknesses of the traditional organization. He has not, however, permitted the weight of routine and tradition to bear him down. His philosophy is that of the functionalist and his emphasis is placed upon the power acquired by the child. The child occupies the center of the scheme and has the right of way over mere teacher domination. His fundamental philosophy is sound. His entire presentation has a freshness of actual observation and the pleasure of "doing" which differs radically from the viewpoint of the arm chair specialist. There may be points of difference with some of his conclusions, but his attitude and his general methods appear sound. More encouragement should be given field administrators and supervisors to make like contributions. There is profit in reading this book.

As is the case with the weather, to paraphrase Mark Twain, much has been said about art education but very little has been done about it. William G. Whitford's "An Introduction to Art Education" is a really significant contribution to this field. The author is undoubtedly an authority in his field yet he does not go off at a tangent as do many fine arts specialists. It is the first book that has really brought together in a single volume the various phases of art education. His thesis is (1) that art is an essential factor in twentieth century civilization, that it

plays an important and vital part in the everyday life of the people and (2) that the public school presents the best opportunity for conveying the influence of art to the individual, the home and the environment of the people.

He develops his theme as education of the child "to the enjoyment and use of beauty in every possible situation of modern life." His concept is truly functional and practical. There might possibly be great difference of opinion between this view and that of the extreme utilitarians who do not believe in training for leisure or for appreciation. This group, however, appears to have turned a "means" into an "end," and its fundamental assumptions are faulty and may be dismissed. Although intended primarily as a text in teacher training it is of as great value to the principal and the supervisor.

A Guide for Teachers

Douglas Waples and Charles A. Stone, both of the University of Chicago, have collaborated in "The Teaching Unit." This study, based upon personal experimentation and research, is built around the adaptation of the Morrison unit plan of organization. It is confined specifically to junior high school mathematics but, because of its completeness in method and details, it points the way to possible use as a guide in doing similar work in other subject fields. The authors planned it as a guide for teachers working in this field and as a stimulus towards further field experimentation and research.

The last effort considered in this group is the very recently published "Principles of Teaching and Learning in the Elementary School" by Mrs. Lois C. Mossman, Teachers College, Columbia University. The book is an interpretation of modern school procedures based upon the laws of learning. Mrs. Mossman defines learning as "the process of living richly and fully and of growing through experience." Her opus is based upon the results of her own teaching experience in private schools. The principles set forth and developed are probably applicable to public school organization as well. It is well written and forceful.

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How Long Do Superintendents Hold Office?

The median tenure of superintendents in their present positions is ten years, data collected from 1,679 city school superintendents for the year-book of the department of superintendence, National Education Association, show. An analysis of the figures submitted was published in *School and Society*.

In cities under 2,500 the median tenure is five years; 2,500 to 5,000, six years; above 5,000, eight years.

In cities of more than 100,000, 40 per cent of the superintendents hold doctors' degrees; 34 per cent, masters' degrees; 25 per cent, bachelors' degrees and 1 per cent, a diploma. In cities of 10,000 to 30,000, 5 per cent have doctors' degrees; 53 per cent, masters'; 41 per cent, bachelors' and 1 per cent, diplomas. In cities of 5,000 to 10,000, 1 per cent of the superintendents achieved a doctorate; 41 per cent received masters' degrees; 55 per cent, bachelors' and 3 per cent, diplomas. In cities below 2,500, 1 per cent doctors'; 44 per cent, masters'; 52 per cent, bachelors' and 3 per cent, diplomas.

Of the entire number, 320 or about 19 per cent did not list their degrees.

Staff Meetings Are Important in the School System

At least 80 per cent of the time given over to staff meetings should be given over to the discussion of educational problems, an article on staff meetings in *School Executives Magazine* for October says. The principal will regard the staff meeting as partaking of the character of a graduate seminar in which the most fundamental problems of education are taken up for discussion by all members of the staff, the article continues, and emphasizes that in a nine months' term there should be in every school between nine and sixteen or seventeen staff meetings, lasting an hour, preferably an hour and a half or two hours, held after school on a convenient day and not during the luncheon period.

The superintendent's meetings with principals, supervisors and other members of the administrative and supervisory should be held once or twice a month, it points out, with the major part of the time devoted to the discussion of purely professional problems.

That the staff meeting of the school system may be regarded as the power plant of the system, is the concluding statement of the discussion.

Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

This department will be devoted to an informal discussion of problems arising in the every-day life of principals and superintendents. The following discussions are based on answers to inquiries received recently by the director of the department. Similar inquiries are invited and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.

An Administrator-Teacher Problem

The following inquiry from a teacher presents one of the most interesting problems that has been submitted in some time. It is hoped that many readers will send in their reactions to and their opinions on the subject.

"Two years ago the administrators here decided to abolish the old system of giving a 'failure' and gave instead a grade of I, which they thought would take away the stigma attached to the first term. In brief, the idea is this—any pupil who does not do his work satisfactorily, whether from lack of capacity, laziness or sickness, receives an I for his six weeks' grade.

Principal and Superintendent Favor the Plan

"So far the idea is all right, but here is the catch to the affair—every pupil who gets an I, no matter for what reason, has the privilege of coming to the teacher and making it up. Preferably this is to be done soon after the grade has been received, but if the pupil wishes, he can put off the make-up work until even the last two weeks of the semester. Then if he is so inclined he can go to the teacher, and she is absolutely compelled to give him enough work to enable him to pass the course. Last year, I am told, this happened in several cases. The pupils loafed for the greater part of the semester, but towards the last they decided to improve their ways.

"Of course, this is fair enough if a pupil has been ill, but the whole difficulty is that the pupils now are saturated with the idea that they may do their work when the spirit moves them. Therefore, if they do not want to work during a six weeks' period, they sit in class and do nothing. If they are behind in a theme or miss an examination, they rest serenely on the hope that they may make it up at any time. The consequences of this are more far-reaching than one at first thought would suppose. Our pupils come

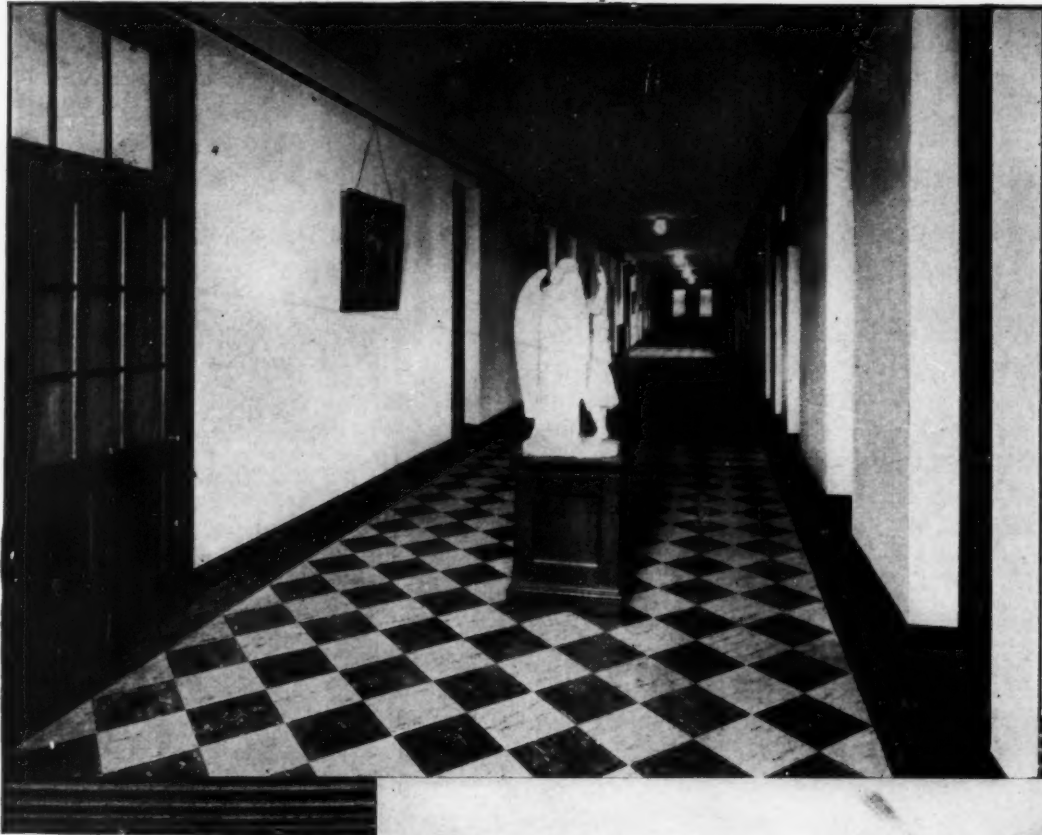
from the laboring people, and are none too prone to study at any time. Many of them attend school because it is a necessary evil until they attain a certain age.

"It seems to me that the general attitude of the pupils is one of indifference to their work. Practically all are distinctly lazy. This is the opinion of most of the teachers. I attribute this attitude in large measure to that giving of the I grade, which may be made up at any time. What do they care if they do not hand in a book report or a theme, or write an examination, when they can do the work at another time in the future? I have one class of seniors, and their serene disinclination to do any work this early in the year is somewhat appalling.

"Our principal is radically in favor of the plan, as is also our superintendent. So are the teachers, with reservations. Is there not material in print on this subject that I could use for reference for a paper on the problem? Personally, I cannot see what good it does to call a failing pupil an I pupil anyway because, while for a time being the idea of failure may be abolished, as soon as the community becomes acclimated to the I grade and realizes that those pupils who receive it are not doing satisfactory work, it is going to mean failure anyway.

Why Not an Equal Chance for All?

"The principal here has the idea firmly implanted in his mind that the teacher's job is with the dull pupils. He claims that the brighter ones will get along anyway and that the teacher's work is with the D and I pupils trying to raise their level of intelligence. He thinks the community should be boosted from below, that the higher groups will take care of themselves. All of our spare time, as well as most of our other time, belongs to the slow pupils. The principal cannot understand that we may be neglecting some po-



AT LEFT: Corridor floor of Sealex Treadlite Tile in Fontbonne College for Women, Clayton, Mo. Under the direction of Sisters of St. Joseph.

...

BELOW: Exterior view of new buildings of Fontbonne College.

General Contractors:
Humes-Deal Company
Bonded Floors Contractors:
Stix, Baer & Fuller



At Fontbonne College

BONDED FLOORS *give quiet, ease and comfort*

THESE beautiful new college buildings are equipped with quiet, resilient Bonded Floors. Corridor floors are of Sealex Treadlite Tile, laid tile-by-tile in a pleasing made-to-order pattern. A soft brown tone of Sealex Battleship Linoleum was used in the rooms.

Thanks to the exclusive *Sealex Process* of manufacture, Sealex floors are non-absorbent and easily cleaned, odorless and sanitary. Moderate in first cost, inexpensive to maintain

and exceptionally durable, they stand for the last word in intelligent economy.

Only such floorings, laid by a Bonded Floor contractor, could carry our Guaranty Bond insuring years of trouble-free service. Authorized contractors for Bonded Floors are selected, experienced and responsible firms. They know their floorings—and we back their work with a Guaranty Bond!

Whether you are planning a new building or remodeling an old one, a Bonded Floors authorized contractor can be of assistance to you in deciding upon the type, pattern and cost of the floor. Without obligation on your part, of course. Write our Department T.

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tential genius, for he feels that there are no 'mute, inglorious Miltons.'

"The reason this question is so vital is because of this old question of the I again. I have several promising pupils who want to do extra work in English—writing poetry and the like—but I have no time to give them outside of class since I am busy with those who are clamoring to make up the I's. Do you see how all our roads lead to Mecca? Since the fathers of both the bright and dull pupils are taxpayers, we should devote our time at least equally to all. The bright pupils have a right to extra help too. One teacher said that if the I pupils could make up their work and get a higher grade, she didn't see why the C pupils shouldn't have a chance to do more work to get B's and the B's to get A's."

Teacher Should Participate in Grading Schemes

The letter was answered as follows:

"Your letter is one of the best examples I have seen in some time of the high degree of association between the objectives of the curriculum, grading schemes and providing for individual differences. Also, your comments illustrate clearly the need for active teacher participation in the formulation and use of grading schemes.

"In the first place, the policy of never labeling a pupil a failure is probably a good one. The traditional grade of failure has really meant that passing credit could not be given. Under existing weaknesses of measuring devices, we are probably unable to say accurately whether a pupil really fails completely to profit by any life experience. Consequently, when a pupil has gone an entire semester or course period and has not done work of sufficient quantity and quality to earn credit, a grade, N. C.—no credit—has been found to be satisfactory. However, during a semester or year, there are always pupils who because of illness are unable to do any significant work and who really can earn credit in one or more courses by doing additional work. For such cases the I—incomplete—may well be given.

"Attention is called to the fact that a grade of N. C. is recommended for all those who throughout the duration of a course or a part of a course have not done enough work to earn credit. The grade of N. C. on a course should indicate that if credit is desired the course must be repeated. Obviously, a pupil might receive a grade of N. C. for one six weeks' period during a course and do good enough work the rest of the time to earn credit.

"The grade of I is recommended to show that failure to earn credit has not been due to factors the pupil might control and that credit on the

course or courses on which a grade of I has been received may be gained by doing work not yet done. Care must be taken to interpret credit requirements in terms of both quality and quantity. In other words, credit on any course should indicate that at least a minimum amount of work has been done and that the work has been of at least a minimum quality.

"To me it seems most unfortunate that any administration should suggest that teachers spend the major part of their efforts and time upon the inferior group. After all, schools are supposed so to prepare human beings that the greatest possible contributions to civilization will be made. Major contributions will come not from the mediocre person but from the superior. Consequently, it seems plain to me that the group of superior pupils should receive at least as much training as the group of retarded or slow moving pupils.

"The following discussions in 'Your Every-day Problems' devoted to grading and curriculum may interest you: Fitting the Curriculum to Individual Differences, February, 1928; What Do School Grades Mean? January, 1929; Another Inquiry Concerning School Marks, September, 1929."

A Problem in Grouping

The following inquiry has been received from Connecticut:

"I am interested in securing information regarding the teaching of two grades in the same room.

"Assume that one teacher has a class of thirty or forty pupils, ranging from the second to the sixth grade. Do educators believe this method accomplishes better or worse results than if there were only one grade in the room? Does the child in the mixed grade advance faster? On which side does the bulk of opinion lie? Are there any articles on the subject to which you could refer me? Could you secure the opinions of one or two leading educators in your section, or could you suggest names to me so that I could write?"

Unfortunately, I do not know of any experimental evidence on this subject. Here is another illustration of the need for experimental research in the field of administrative matters. It is rather generally agreed, however, that decidedly better results are obtained if there is only one grade in the room. Indeed, it is rather widely believed that an even better arrangement is a half grade grouping. Again, it may be said that this rather fundamental problem should be attacked experimentally, rather than settled on an *ipse dixit* basis.

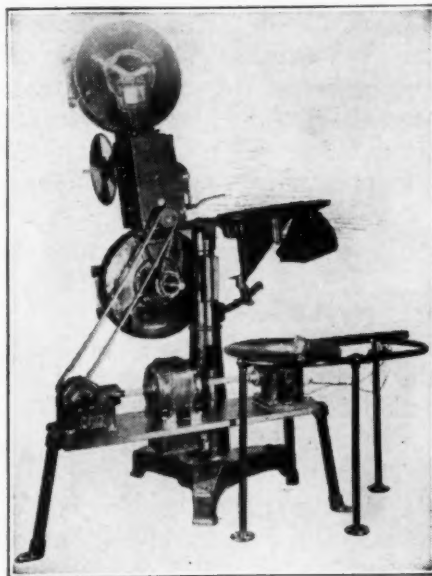
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Practical School Administration: The Business of Budget Making in a Functional Organization

BY PHILIP C. LOVEJOY, ASSISTANT SUPERINTENDENT, HAMTRAMCK PUBLIC SCHOOLS, HAMTRAMCK, MICH.

CURRENT practice in finance whether for industrial or for civic enterprises tends to emphasize the need of budgetary control. The federal government has stressed this matter in the last six years. Municipalities are adopting scientific forms of budgets. Industrial corporations have long since ascertained that their chief method of controlling finance is by means of a carefully prepared budget.

More and more are schools seeing the need for scientific budgets. For a long time schools have been making at the end of each school year a sort of hit-and-miss guess as to the supplies needed for the new year. Recent demands of citizens concerning economy in the schools, however, have forced administrators to study school costs by departments and, hence to make scientific estimates of needs. The careful analysis of present expenditures coupled with an arduous study of future conditions is one basis for the budget. The other is the adopted policies of the board of education. While it may be stated at the outset that the budget is merely a guide, yet it stands as a beacon light in the charted ways of educational administration.

Budget Making Not a Simple Task

Budget making in any organization is not a simple procedure. Putting the adopted budget into effect is much easier. Since the aim of all public-school activity is the instruction of children, the budgetary activity is merely complementary to the ultimate objective. The type of organization, therefore, in which this educational procedure takes place is of considerable importance in attaining this objective in the simplest and most effective manner possible. Since the one reason for the existence of schools is the instruction of the individual child and since all activities of the school system contribute to this one aim, it is to be presumed that the unit type of functional organization will best enhance this process.

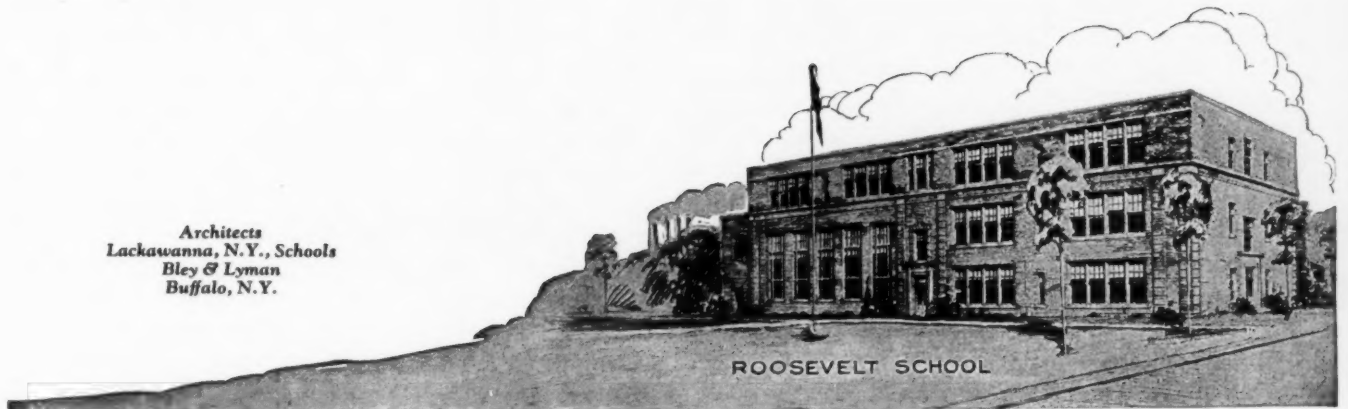
The function of finance is not a separate entity. It exists merely as a means to an end. It is inseparable from the instructional function. It is unqualifiedly attached to it. The dual or multiple system cannot further the instructional program in the same way that the unit system does. The ultimate product of the schools is human beings trained in accordance with their ability to see and to achieve solutions of the problems of their own and of the social life. It is a unitary aim. It is not dualistic.

Instructional Economy Should Be Aim

No finance unit, therefore, can be separate from the instructional component. Economy in the management of schools must always be instructional economy and not merely financial economy. Instructional economy is based on achievement. If the finances are to be reduced, the problem is instructional and the instructional specialists must solve it. Mere business individuals untrained in instruction will fail utterly to correct the situation. Shall it be cheaper teachers and a reduced program? The business executive is apt to answer "Yes." But the instructionally trained finance man says, "Let us have fewer but better teachers. Have them teach more pupils under an improved technique so that we can do a better instructional job with less money. In other words, let us secure instructional economy."

This unit functional organization will be reviewed here briefly. Hamtramck, Mich., has organized its entire educational system under this plan. The board of education, consisting of seven members, has conceived its functions to be two-fold—legislative or policy making and appraisal or judging. As citizens of the community, it is not to be presumed that these board members have a technical knowledge of modern educational theory and practice. They therefore consider it their duty to delegate to a competent person the third function—execution—in the complete cycle of any activity, the other two functions of which

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are planning and appraising. Accordingly, they secure under the terms of the objective qualifications set up in the Hamtramck Public-School Code, a superintendent of schools who shall be in full and complete charge of this executive function. The board of education makes policies in accordance with objective data at its command and delegates the execution of these policies to a single individual with the proviso that he may be assisted by such agents as the size of the system may demand. From this executive the board demands periodic reports of progress that it may appraise the results of the policies as executed.

Thus we have a unit organization. The executive function consists of some ten component parts: administration, child accounting, personnel management, service of supplies, school plant, public relations and informational service, records, research, creative instruction and finance. While in a one-room school all these functions would be lodged in a single individual, in a system the size of Hamtramck further delegation is necessary. This is exactly what is meant by functional organization. Work is differentiated and divided into sections and delegated further to competent specialists. To accomplish this most effectively, straight lines of authority are set up. Exactly how this is accomplished in Hamtramck is shown in Diagram 1.

Since the thesis of this paper is budget making, we proceed immediately to analyze the work of the assistant superintendents of instruction and

of finance to see how this delegation functions. Diagram 2 shows how the assistant superintendent of instruction is assisted by the directors of instruction and how their only power is through the office of the superintendent unless they are called upon by the principal. They therefore become creative agents in the development of the instructional program.

Diagram 3 shows the details of the office of the assistant superintendent in charge of finance. The budget is one of the subdelegated functions. Coupled with this are child accounting and service of supplies together with such research as may be necessary.

Before any progress may be made on any budget construction, a set of policies must be adopted by the board of education. The facts that must be known include: the type of organization; the richness of the curriculum; the extent of organization; the pupil-teacher ratio; the length of the school day; the length of the teaching day; the extent of free supplies and textbooks; policy as to plant expansion and size of buildings and the salary schedule. All these and myriads of other specific questions must have been definitely answered in adopted policies. In Hamtramck the adopted policies of the board of education are printed in the Hamtramck Public-School Code. The means of procedure for putting these policies into effect are also included in the publication. The organization of the schools, for instance, calls for a Kg 6-3-3 development with an enriched



Diagram 1. In a functional organization, work is differentiated and divided into sections and delegated to competent specialists. To accomplish this effectively straight lines of authority are set up.

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“Good will among men”
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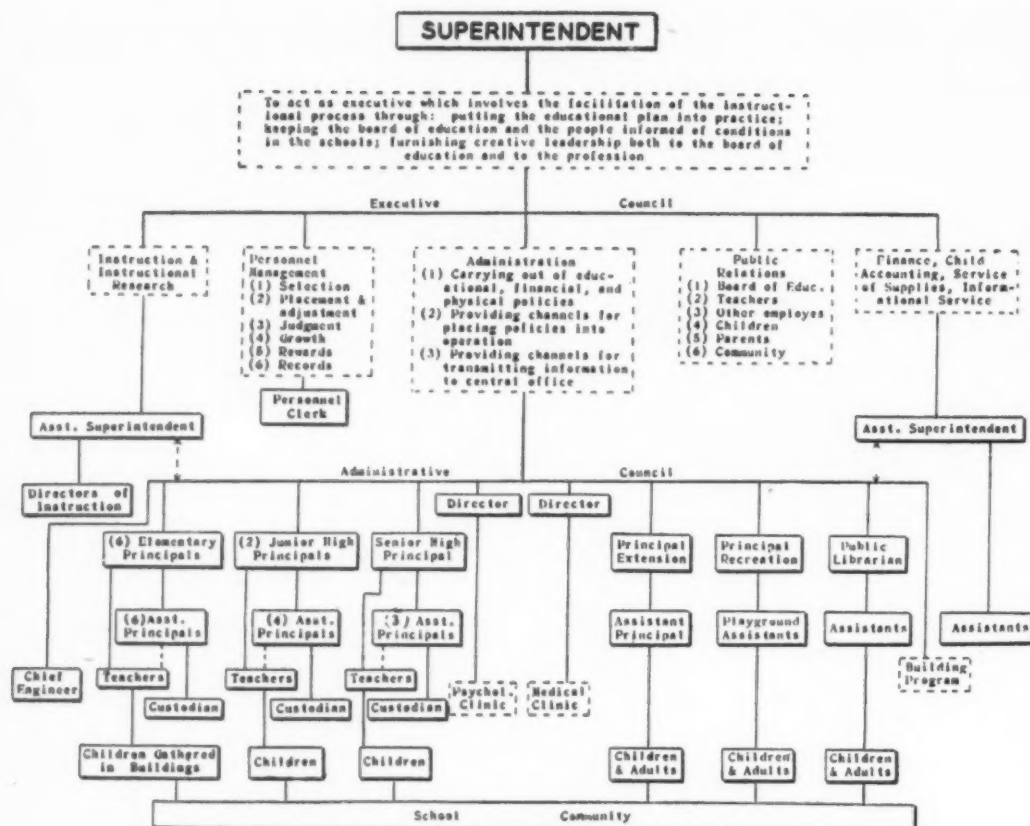


Diagram 2. The assistant superintendent of instruction is assisted by directors of instruction whose only power is through the office of the superintendent. These directors of instruction are creative agents who devise the course of study and constantly refine it.

curriculum on a duplicate plan in the elementary school and complete departmentalization in the secondary division. All essential supplies are to be furnished free of charge. To show definitely the need for policies and to show how the execution of these policies functions, let us take a specific situation and develop the budget.

The department of records under the jurisdiction of the assistant superintendent of finance has accumulative figures for a period of years. These show increase in population, increase in school census, accelerations and retardations, number of children per thousand of school census who are in school and numerous other data. When these figures are coupled with changing conditions in the school district, such as a probable expanse in new territory and industrial development, it is possible to prophesy fairly accurately the number of children to be served both in membership and in average attendance. For budget making purposes the exact location of the children within the district is not important since the entire system is the base in this activity. A sudden shift in population may mean that teachers and supplies may be shifted, but if the probable total number has been prophesied correctly no trouble will be forthcoming.

When the probable number of children to be served has been accurately determined, it next becomes the duty of the personnel department to apply the board policy of pupil-teacher ratio to the various groups in order to determine the

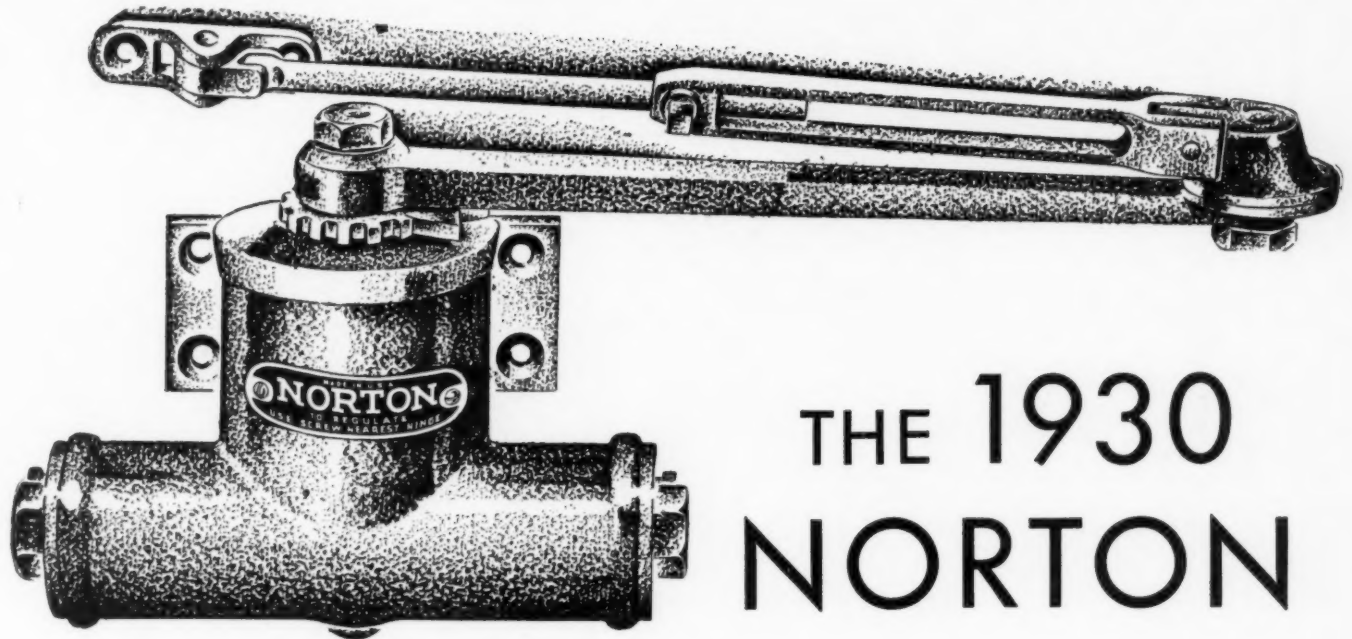
number of teachers necessary for the new school year. This application must of course take into account the specific organization within department and also within each building. For instance, in Hamtramck the figures for the November kindergarten membership for the past five years are as follows:

1924.....	1,006
1925.....	1,015
1926.....	1,013
1927.....	935
1928.....	928
1929.....	900 (estimated)

Before accurately applying the adopted policy standard to kindergartens, we must take into account the average attendance which in kindergartens is usually much lower than the membership. The following figures are given for Hamtramck:

1925.....	569
1926.....	683
1927.....	631
1928.....	735
1929.....	800 (estimated)

It will be noticed that kindergarten membership is decreasing slightly, due to the fact that Hamtramck has reached the top of the S curve of growth. It will also be noticed that the average attendance is increasing so that in all probability equipment must be maintained for some 900 kindergartens in 1929 while the teaching staff may well be based on an average attendance of

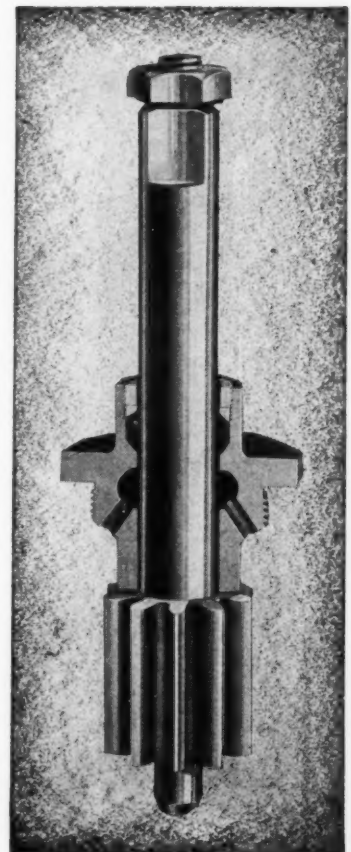


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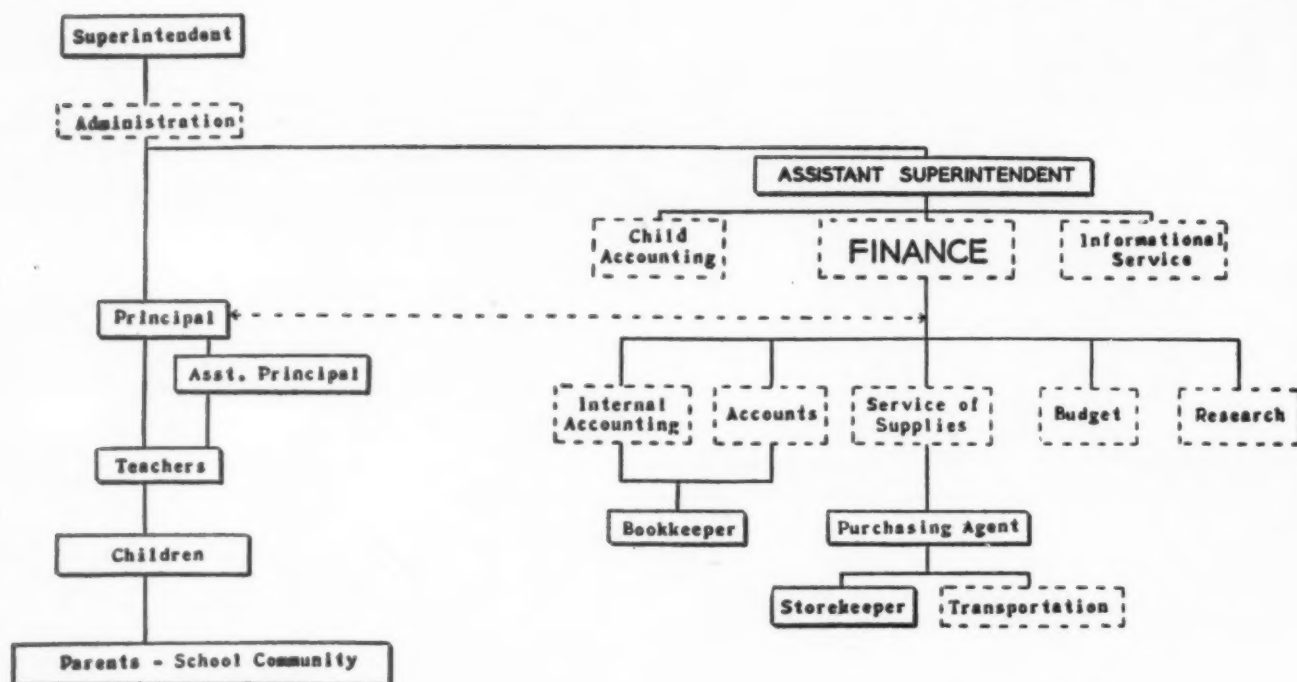


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but 800. Applying the board policy of kindergarten load, which calls for classes of between thirty and forty pupils, to this figure of 800, which is to be divided by two since the board policy states that kindergarteners shall attend but one session daily, we have 400 divided by the maximum load, which is forty. Ten teachers,

TABLE I—THE KINDERGARTEN BUDGET FOR PERSONAL SERVICE IN HAMTRAMCK

Teacher	Present Salary	Proposed Salary	Increase
328	\$ 2,100	\$ 2,200	\$100
334	2,100	2,100	0
327	2,000	2,100	100
331	1,900	2,000	100
352	1,900	2,000	100
326	1,800	1,900	100
332	1,800	1,900	100
330	1,700	1,800	100
335	1,700	1,800	100
358	1,400	1,500	100
Substitute Service	1,000	1,000	0
	<u>\$19,400</u>	<u>\$20,300</u>	<u>\$900</u>

therefore, are necessary for this department as far as the entire system is concerned. (Kindergarten attendance and membership are subject to marked fluctuations. These figures are an average for the year.)

Having determined the number of teachers necessary, we next place these teachers on the adopted salary schedule in accordance with its provisions. We secure by departments the amount of money that will be necessary for per-

sonal service during the ensuing year. By assigning a number to each teacher for purposes of record and identification, it is possible to publish complete details of the salary budget without giving to the public certain information considered personal by the teacher. In Hamtramck the kindergarten budget for personal service for the ensuing year is shown in Table I.

The next concern in budget making is one of textbooks. In the unit organization maintained in Hamtramck, the assistant superintendent in charge of instruction is assisted by six directors of instruction who are specialists in their respective fields. These directors of instruction are creative agents who devise the course of study and constantly refine it. This course of study is approved by the board of education in accordance with the manner set forth in the Hamtramck Public-School Code. In this course of study, certain textbooks are essential to the adequate fulfillment of the aims. To meet this need standards of distribution of textbooks are set up for the entire system. Extracts from this standard for kindergartens are shown in Table II.

The application of the standard to the school system in Hamtramck and the translation of this

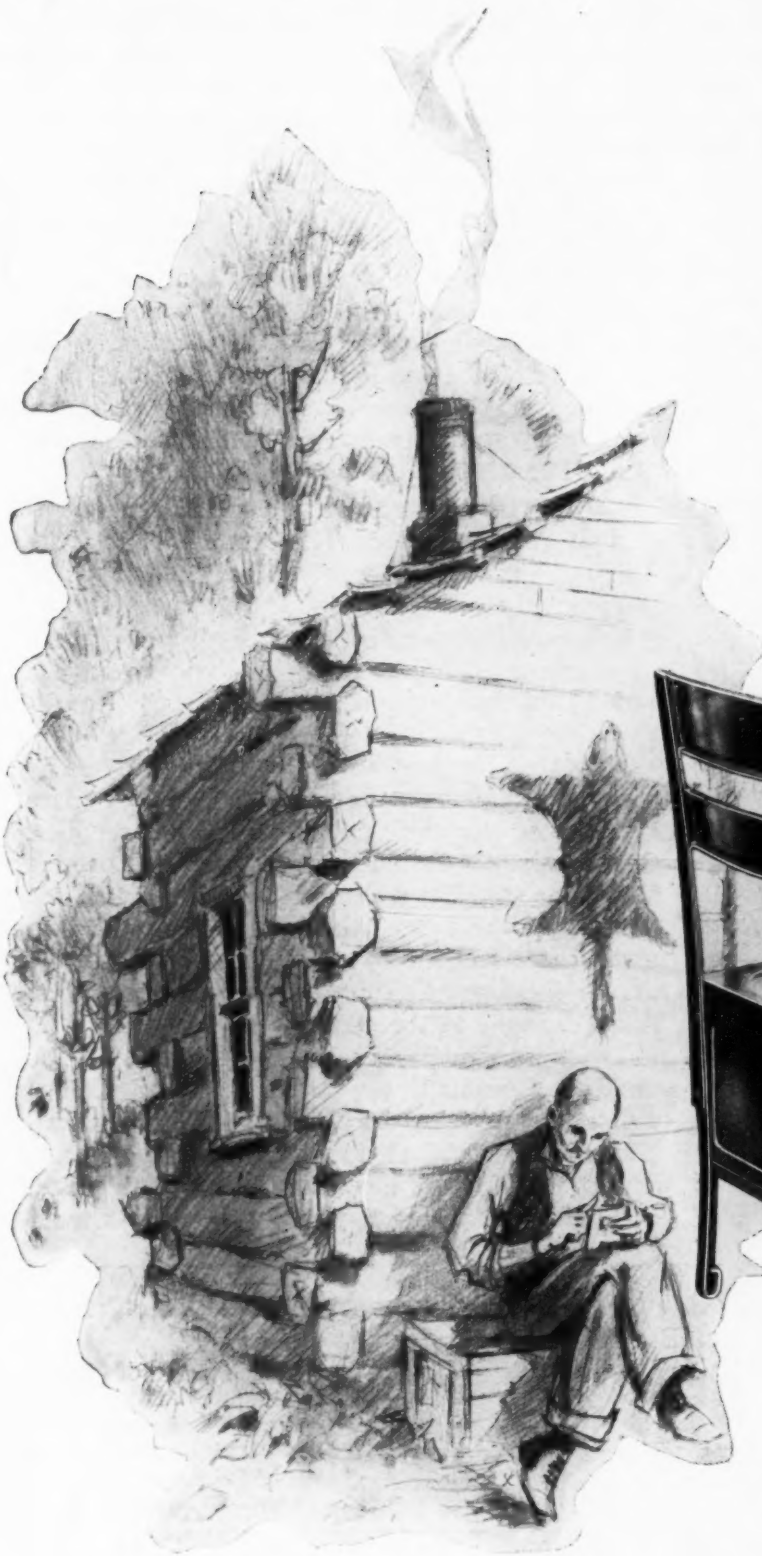
TABLE II—EXTRACTS FROM STANDARDS OF TEXTBOOKS FOR KINDERGARTENS

Kindergarten Textbooks	Item Code	Publisher	Distribution
Three Little Pigs ..	657	V 426	3R
Three Little Bears .	669	V 426	3R
Raggedy Ann	V 200	1R
A B C books	V 426	6to100P

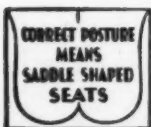
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standard into money is the function of the assistant superintendent in charge of finance. It is necessary to ascertain the number of kindergarten rooms and the number of pupils to apply this standard. There are ten kindergarten rooms and, hence, the first three items listed in Table II

TABLE III—STANDARD OF DISTRIBUTION OF SUPPLIES IN THE KINDERGARTEN DEPARTMENT

Item	Code Unit	Distribution per Semester
Patriotic pictures, Washington, 3x 3 $\frac{3}{4}$ inches each		$\frac{1}{2}$ P
Lincoln each		$\frac{1}{2}$ P
Calendar pads, 1 $\frac{3}{4}$ x1 $\frac{1}{4}$ inches		1 P
Paste 0.038 gal.		3/100 P

translate into thirty books of the first and second types and ten of the third type. The cost clerk knowing the unit prices can easily assign a money cost to these three items. The fourth item must be based on the probable building membership of kindergartens. In this we find the following figures:

Building A	125
Building B	200
Building C	95
Building D	180
Building E	180
Building F	160

The books needed for this distribution therefore will be 8-12-6-11-11-10, or a total of fifty-eight A B C books.

Before we can know how much money to place in the budget for these books we must check the textbook inventories to ascertain how many of these titles will be on hand for the beginning of

the new school year. In each school there is a running textbook inventory on a visible card file. The next number of these books is always ascertainable. When books become worn to such an extent that they must be discarded they are so entered in the issued column that the running balance is up to date. A master inventory is kept at headquarters so that an accurate estimate may be made for the number of books that will be needed for the coming year in any department. The unit cost clerk attaches the prices to the net needs for the ensuing year and the textbook needs have thus been translated into money and the column posted in the tabulation. For 1929, this total is \$179.

A word may be inserted as to the interpretation of such standards. Wherever possible the unit for distribution purposes has been made as small as possible. Thus if we have such a unit as "chalk, one box per sixteen pupils," and we find an anticipated membership of twenty-five, it would take two boxes of chalk to satisfy the distribution.

Now that the textbook budget for the year is prepared, we can turn our attention to the more complicated matter of budgeting the supplies. Once again the instruction department has sent to the finance office a standard of distribution for all supplies throughout the system. Table III lists several items taken at random from the kindergarten list since this department has been used as an example in the preceding discussion.

These standards must be correlated with the number of pupils to get the amount needed. The unit costs may then be attached to this distribution and the total amount for the kindergarten department for the new school year determined.

Outside of equipment we now have the current

TABLE IV—SUMMARY OF BUDGETARY REQUESTS SUBMITTED TO THE HAMTRAMCK BOARD OF EDUCATION

Title: Kindergarten

Code: 12-2000-000

Code	Service	Amount Allowed 1928-29	Estimated Expenditures 1928-29	Amount Asked 1929-30	Increase Over Am. Allowed	Increase Over Estimated Expenditures	% Increase Over Estimated Expenditures
12-2110-000	Personal	\$23,800	\$19,400	\$20,300	\$3,500	\$900	4.6
12-2120-000	Supplies	1,298	1,000	1,038	260	38	3.8
12-2130-000	Free textbooks	39	34	179	140	145	4.26
	School library books						
12-2150-000	Other expenses						
Total		\$25,137	\$20,434	\$21,517	\$3,620	\$1,083	4.8
Grand Totals							

For details of personal service see page 10
For details of free textbooks see page 12

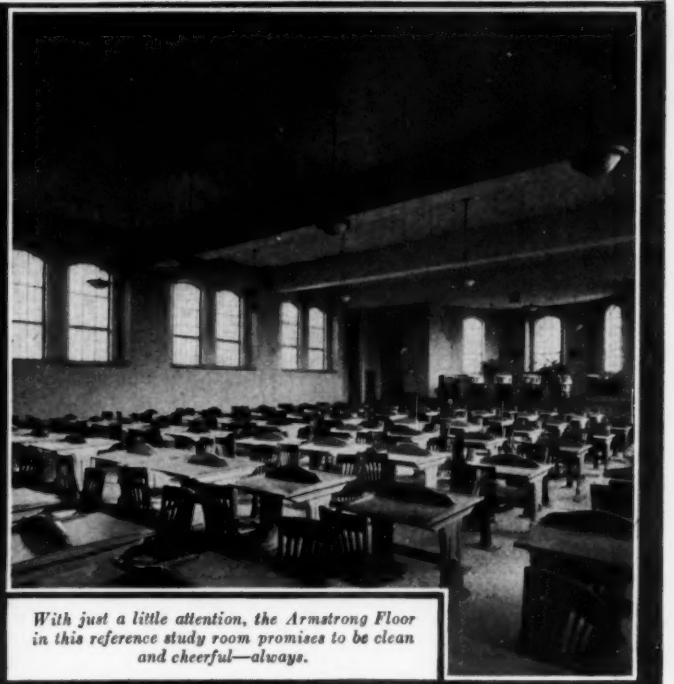
For details of school library books see page ...
For details of other expenses see page ...

Perhaps the Students are responsible

Library of the
University of
Washington,
Seattle, Wash.



Feet and floor don't quarrel noisily since Armstrong's Linoleum was laid in this reference room in the University of Washington library.



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ARMSTRONG'S Linoleum Floors were installed in the University of Washington's Library Building in 1926. Three years later a survey was made of floors in stores on three blocks of University Way, main business street of the University district. Of 121 stores, 53% had linoleum floors; of this number, 64% were Armstrong's Linoleum Floors.

Of course the merchants had heard of the installation of Armstrong's Linoleum in the beautiful university library. Perhaps the students told them of the quietness, cleanliness, and permanence of this modern floor.

"Yes, it's much easier to concentrate now," the students may have said. "You don't hear every

footstep coming and going. Real quiet, at last! The color's very pleasant, too—a rich, restful green. The floor seems brighter, cleaner, both morning and evening."

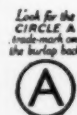
Of course Armstrong Floors are quiet—one of the principal ingredients is sound-muffling cork. That means they're non-slippery, as well. As for color, there are scores of patterns, ranging from modest plain colors and jaspés to interesting modernistic and marble designs.

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Linoleum clean, mopping and occasional waxing or lacquering are all that is necessary. This cleanliness is enhanced by the spot-proof, stain-proof nature of the Accolac-Processed surface. Above all, Armstrong Floors are permanent, since good laying guarantees a hand-tailored floor that lasts as long as the building.

But these facts are only a few which the students may have told the merchants—which may have influenced the merchants to follow the example of a great university.

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maintenance budget for kindergarten completed. The details of this budget are to be presented to the board of education in part three of the budget. However, for the busy board member who wants a general summary of the entire budget there will be part one which will set forth the major divisions and summary requests. Part two will set forth the requests in a narrative form and will be followed by a general table similar to Table IV.

The narrative to be presented to the board of education in conjunction with the tabulated summary shown in Table IV is as follows:

Fund	Maintenance
Activity	Instruction
Subactivity	Kindergarten
Code	12-2000-000

Service: In the kindergarten the child begins his institutional experience outside the home as a member of a social group. Each child receives one-half day of informal instruction beginning the training that has for its purpose the development of mental power. These children are below compulsory school age. The activity includes teachers assigned to this division, the cost of supplies, books and incidentals. The kindergarten activity is organized as an integral part of elementary education.

Policy: It is the policy of the Hamtramck Board of Education to provide each child who enters with one session of two and one half hours daily in classes containing from thirty-five to forty children. It is also the policy of the Hamtramck Board of Education to furnish all essential supplies and books free of charge.

Requests: The requests amount to \$21,517 which is \$3,620 less than the current budget allowance. The current estimated expenditures will total \$20,434 making a net increase in amount asked of \$1,083. The increase is allotted as follows: schedule salary increases, \$900; supplies, \$38; textbooks, \$145.

Developing General Control

The increase in textbooks is due to further study by the department of instruction which has determined that the kindergartens have been undersupplied with this type of material. The per capita expenses for 1929-30 on the basis of an anticipated membership of 900 will be as follows: personal service, \$22.55; supplies and books, \$1.35.

Thus far there has been developed in detail the budget for one division of the school system. General control must be developed in the same manner as the divisions of elementary, special, junior high and senior high schools and trade education.

It is a question of getting the facts, interpreting them in the light of the best instructional technique, of applying board policies to the facts, of inventorying goods on hand and of ascertaining exactly what money is represented by the instructional standards of distribution. The contribution of the department of instruction to the department of finance is the chief consideration. It must in fact determine what can be eliminated.

Standards of Distribution Again Necessary

The division of coordinate activities and auxiliary agencies is developed in much the same manner except that other specialists are called upon to furnish the standards of distribution. Then comes operation. Here again there must be standards of distribution. Probably the maintenance engineer can best develop these standards of operation supplies. But in every case the supplies recommended must have as their ultimate objective the enhancement of the instructional process for the individual child. The same applies to maintenance. School buildings exist merely for their contribution to the program of instruction. They must be ever ready to contribute to that program.

Fixed charges are easily determined by the finance man in accordance with need. Debt service has been fairly well established by the past policy of the board of education in meeting school plant needs.

The capital outlay problem as far as equipment is concerned reverts once again to the department of creative instruction. What equipment will best contribute to the instructional process? That and that only is economical. At the outset it may cost more in cold dollars and cents, but in the long run it may be far cheaper. Capital outlay for new buildings will have involved a complete study of local geographical conditions—the expanse of the city itself and the growth within the specific district. Here again the child accounting department will prove of great value.

With these details all clearly set forth in part three of the budget, we are ready to develop part two in narrative form for each activity. Having developed the narrative and the summation tables by divisions we next develop the first part, which becomes a master summarization of the entire budget, and compare it with the figures for the preceding year. The entire budget is now prepared save for the supporting statistical tables that should be appended to part three. The whole procedure is printed and forwarded to the board several days in advance of the meeting at which it is to receive its first reading.

That Last Hour When Trouble Starts



Tired—weary and restless—that's why children get into trouble during last hour periods. It's then when teachers are under greatest strain—when children pay less attention to studies and seats are most uncomfortable.

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No. 101

Combination Desk with Moeser Arm Top. Standards finished in durable, baked enamel; woods in National process finish, both in a soft brown color.

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MOTION pictures have found their place among the facilities of the modern school. Getting good pictures—clear, well defined—is not simply a matter of procuring a projector and a screen. Motion picture projection has its fundamental rules that must be carefully considered in relation to each school auditorium. These problems with their special application to school use, are discussed in a new booklet, "Motion Pictures for the School Auditorium." It's a practical handbook of motion picture projection for the school administrator. Just fill out the coupon below for your copy, or write to: Educational Division, National Theatre Supply Company, 624 South Michigan Avenue, Chicago.

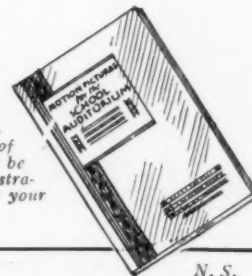
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News of the Month

Historical Association Sponsors Investigation of History Study

The commission on direction of the investigation of history and other social studies in the schools, sponsored by the American Historical Association, at a meeting held on November 7 and 8, in New York City, discussed and approved the proposed testing program under the direction of Truman L. Kelley. The proposed plan had previously been considered by the advisory committee on tests.

The members of the commission are: Frank W. Ballou, superintendent of schools, Washington, D. C.; Charles A. Beard, New Milford, Conn.; Isaiah Bowman, American Geographical Society; Ada Comstock, Radcliffe College, Cambridge, Mass.; George S. Counts, Teachers College, Columbia University; Guy Stanton Ford, University of Minnesota; Evarts B. Greene, Columbia University; Ernest Horn, University of Iowa; Henry Johnson, Teachers College, Columbia University; W. E. Lingelbach, University of Pennsylvania; Leon C. Marshall, Johns Hopkins University; Charles E. Merriam, University of Chicago; Jesse H. Newlon, director, Lincoln School, New York City; Jesse F. Steiner, Tulane University, New Orleans. A. C. Krey, University of Minnesota, is chairman.

School administrators, teachers of the social studies, and other interested groups have been generous in assistance given to the staff of the investigation. Communications from persons interested in current activities of the investigation should be sent to 316 Library, University of Minnesota, or 610 Fayer Weather Hall, Columbia University, New York City.

University Experiments in Preschool Education

The University of Washington last summer carried out a preschool education project called "The University of Washington Summer Session Play School" in an attempt to determine whether constructive work could be done with little children under conditions that would enable the school to be self-supporting without charging the parents a high rate of tuition. This unique experiment is described in an article in *School and Society*.

More than sixty children of from two to six years of age were enrolled, at a nominal fee of \$15.75 for each child for tuition and transportation for the nine weeks, or \$13.50 if the parents called for the children. School was held in the mornings of the first four school days of each week. A trained teacher was in charge of each group. She was assisted by high school girls and mothers.

Some of the special features were: muscle development by means of outdoor activity for one hour each day. The children spent less than a third of their mornings in-

doors, since most of the directed work was held outdoors. A student nurse saw each child every day before he entered school and consulted with the parents, thus building up health habits. Cheerfulness, fair play, initiative, courage and independence were encouraged by expecting these qualities and ignoring or discouraging their opposites. Normal social adjustments were achieved by relieving the social strain by giving the children sufficient space and freedom during the early part of the term when the train was heaviest. The number of work and play materials was sufficiently large for each child to have his own, without having to wait for another child to finish. Elementary instruction in the arts, sciences and crafts was given by means of nature study, conversations and experimentation with art materials. An advanced student from the university helped to carry out a careful program of musical education. Each mother was given at least one opportunity to help with the children.

Radio Broadcasting to Help in Adult Education

The American Association for Adult Education has announced the undertaking of a six months' survey to determine the possibilities of radio broadcasting in adult education. The study, made possible by the Carnegie Corporation of New York, is a part of the association's policy of fostering interest in educational opportunities for those of mature age.

The survey will be made in cooperation with an investigation of the whole field of radio in education begun last summer by the special committee appointed by the Secretary of the Interior, Ray Lyman Wilbur, of which Commissioner Cooper of the Office of Education is chairman. Levering Tyson, formerly alumni secretary at Columbia University, and John M. Russell, until recently of the staff of Ginn & Company, Boston, will make the survey for the association.

American Educators to Visit German Schools

According to an announcement made by Dr. Thomas Alexander, Teachers College, Columbia University, the German government has invited a group of American educators to visit schools in Germany next summer. The International Institute of Teachers College is cooperating with the German government in arranging the trip, which will start from Hamburg on June 22 and will conclude on August 3. Fifteen school systems of Germany will be studied. A representative of the ministry of education will serve as interpreter for the group. Those who make the trip will have the opportunity, either during or immediately after the tour, to see the Passion Play at Oberammergau.



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In conjunction with the Western Electric Public Address System its music may be distributed to one or as many rooms as desired. It may be used for marching, for exer-

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Principal's announcements

may be put on the same system through a microphone—and directed to whatever rooms he chooses.

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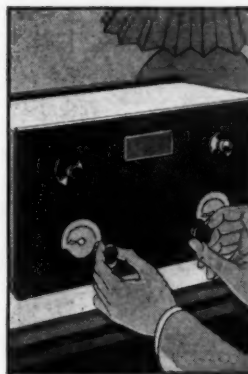
—and the distinguished visitor "visits" all rooms at once —thanks to the microphone.



The principal's voice may be heard in 15 (or 150) rooms at once.



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News of the Month

World's Youngest University Chief Installed

Robert Maynard Hutchins, the youngest university president in the land, was inaugurated November 19 as head of the University of Chicago.

The new thirty-year-old president became head of an institution with approximately \$90,000,000 in assets, an endowment of \$51,000,000, an annual budget of more than \$6,000,000, a faculty of 750 and a student body of 14,500.

Surrounded by distinguished educators from many parts of the United States, Doctor Hutchins outlined the educational policy he intends to follow.

President Hutchins' first official act was to confer the honorary degree of doctor of laws on his own father, Dr. William J. Hutchins, president of Berea College, Berea, Ky.

Insurance Projects Adopted by Universities

The University of Minnesota regents recently approved two insurance plans, one providing for protection on the lives of faculty members and the other for insurance on a number of university buildings.

The project for insurance on the lives of faculty members will cost the university about \$30,000 a year, according to a report made to the regents by Prof. Richard Scammon, chairman of the committee which investigated insurance plans.

Protection would be provided in case of death or disability, as well as aid in old age. Faculty members would pay about \$75 a year, with the university donating from \$50 to \$60 for each. Each faculty member's family would receive \$10,000 in case of death.

President L. D. Coffman announced that a reserve fund of \$45,000 is available to start the insurance fund.

The fire insurance will be provided as a result of a ruling a short time ago by Attorney General G. A. Youngquist that the university may insure income producing buildings. The regents adopted the plan to insure a number of these, pointing out that only those parts of buildings liable to destruction by fire will be covered.

The Indiana State Teachers College has adopted a group insurance plan offered by the Equitable Life Insurance Company, which provides for insurance for the faculty group.

The board of trustees of the institution have agreed to pay a share of the premium.

Increase in Educational Legislation Noted

Approximately 1,200 educational acts of general application were passed in the continental United States during 1926-28, according to the Office of Education.

The outstanding feature is the increased tendency to employ educational surveys and statewide investigations as bases for educational legislation. Within these two years more states than usual took legislative action to-

ward revising and codifying their school laws relating to education; and the trend of present legislation is toward fixing greater responsibility on the state boards for the administration of the state school systems. Financing public education now constitutes the foremost problem in educational legislation. Within the past decade practically every state has in some way endeavored to equalize educational opportunities by increasing aid given poor communities by the state.

As compared with other governmental or civil units, the county entered the business of administering public education somewhat late. In general, the community unit, township or district was the first in the field, but since the beginning of the present century the county has rapidly attained an important place in public education. There is a decided trend toward placing greater responsibility upon the county as a unit in educational affairs. The enhanced importance of the county is the result of the assumption of responsibilities formerly exercised by the district rather than those exercised by the state. The tendency to raise the qualifications required of county superintendents appeared in a few states. Recent legislation also increased the salaries of county superintendents in Arkansas, Colorado, Illinois, Indiana, Iowa, Mississippi, Missouri and New Jersey.

Recent enactments show a tendency to provide for larger school units in rural communities by the abandonment of small schools, especially one-teacher schools, and by transportation of pupils of such schools to larger school buildings. Legislative provisions encouraging consolidation and transportation during the past two years were enacted in more than half the states. In recent years the legislatures in the majority of states have manifested a laudable effort to provide means for all children to receive secondary instruction. The effort has been not so much in the way of establishing more high schools, but rather in providing means whereby pupils may attend schools already established.

Site Selected in Alaska for Industrial School

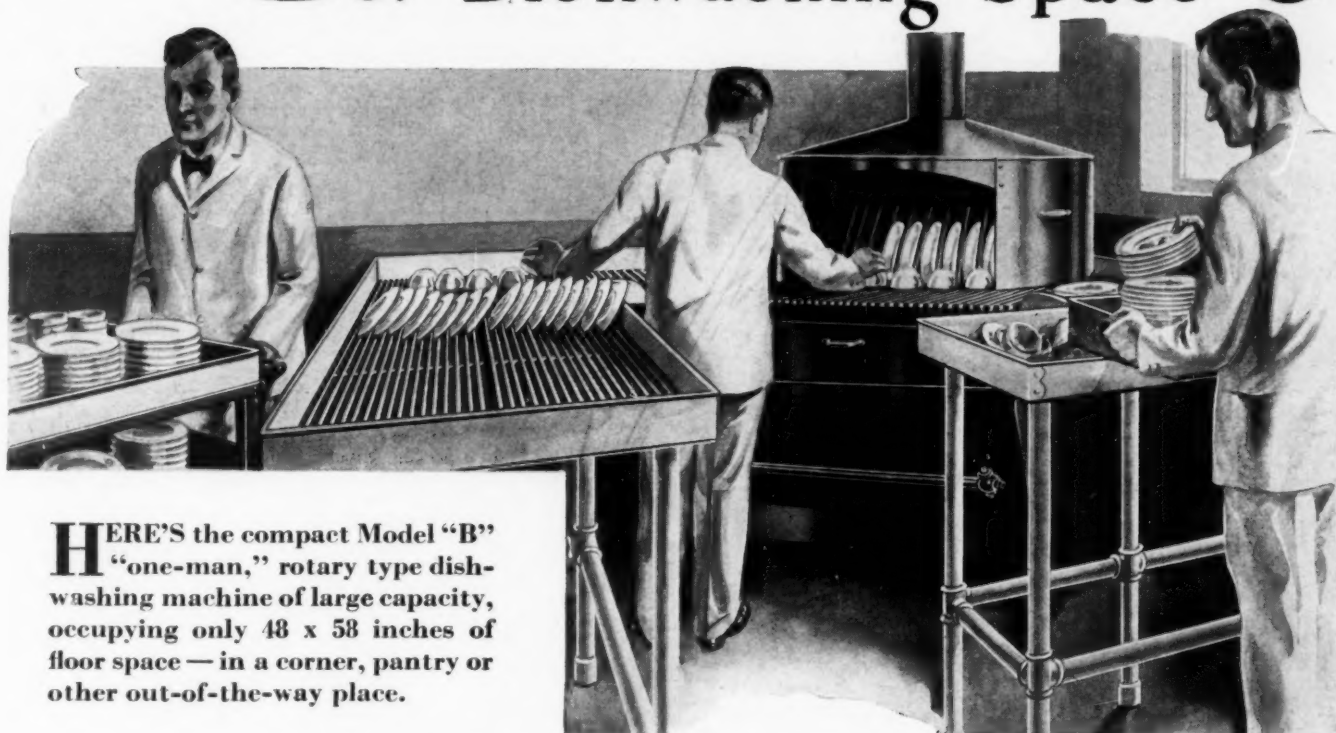
Shoemaker Bay, four miles from the town of Wrangell, in southeastern Alaska, has been selected as the location for an industrial school to be erected for the benefit of natives, the Department of the Interior announced recently.

The selection was made upon the recommendation of the Commissioner of Education, William John Cooper, it was stated. The department's statement follows:

"There were five proposals as to the location of this school, Shoemaker, Saxman, Metlakatla, Mason Homestead and Klawock. A schedule of points to be considered with relative ratings was set up and the award went to the locality which made the highest score.

"The industrial school at Shoemaker Bay will be the fourth of its kind in Alaska. The others are White Mountain School on Norton Sound, next door to Russia; Kanakanak School on Bristol Bay, just around the elbow of Alaska; and Eklutna, on Cooks Inlet near the terminus of the Alaska Railroad."

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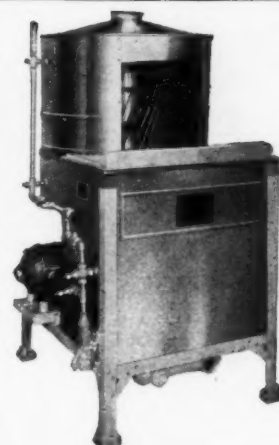
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News of the Month

Series of Educational Film Shows Starts in Manchester

Visual education made a step forward when the Hippodrome of Manchester, England, started a series of afternoon film shows for school and college students. The opening program included a color picture showing the opening of flowers in the bud; a film about monkeys; pictures dealing with the Nile; a version of the Exodus from Egypt; events in the reign of Queen Victoria; football, and sights of the empire.

In describing this event, *School and Society* states that in its 1916 report, the Cinema Commission of Inquiry declared that children who learn by the cinema early develop a remarkable power of observation and the fund of general knowledge possessed by them is far wider and richer than that of those who do not frequent the cinema.

The talking film has not only revolutionized the realm of dramatic pictures but has affected the preconceived notions of what a nondramatic film should be. According to Mary Field, of British Instructional Films, Limited, there are three methods of presenting talking pictures. First, there is the definite short lecture with the expert himself on the screen, explaining his subject either before or during the scenes illustrating it. A second method is to have the actor dress in character and let him speak such titles as are necessary. The third method is the use of the impersonal voice, whose owner is never seen on the screen. The voice would simply say short and popular sentences similar to the lighter forms of titling.

University's Debts Paid by Directors

According to an announcement made recently by the provost of the University of Pennsylvania, Dr. Josiah H. Penniman, forty members of the university's board of trustees have agreed to pay \$1,750,000 to clear the university of indebtedness and to provide a nucleus for an adequate endowment fund. Of this amount \$750,000 will be used for endowing professorships. Pennsylvania has the second largest faculty and the third largest student body in the United States, but its endowment is surpassed by fifteen other universities, according to the *Journal of the American Medical Association*.

Southern Educators Meet in Lexington

Prof. M. E. Ligon, professor of secondary education at the University of Kentucky and principal of the University high school, was in charge of arrangements for the meeting in Lexington, Ky., of the Association of Colleges and Secondary Schools of Southern States which opened Monday, December 2.

The association met in Lexington for the first time, and among the members of the university faculty on the committee on arrangements were: Dr. Frank L. McVey, president, Professor Ligon, Dean Paul P. Boyd and Prof. E. L. Gillis.

On Monday the commission on institutions of higher education and the central reviewing committee of secondary education held preliminary meetings, while on Tuesday the executive council of the commission on institutions of higher education and the commission on secondary schools met.

Wednesday a meeting of the executive committee of the association was held and Thursday morning the association opened the general meeting, with president R. L. Marquis of the North Texas State Teachers College presiding. The meeting of the association Friday morning was held in Memorial Hall at the University of Kentucky, following which a luncheon was given the delegates at the University Commons with Doctor McVey as host.

\$1,500,000 Gift to U. of Chicago Is Announced

A gift of \$1,500,000 by the General Education Board of New York to the University of Chicago department of education was announced recently by President Robert M. Hutchins of the university.

"The grant has been made because of the university's special opportunities for increased usefulness in the study of children of preschool age, the study of backward and abnormal children, and the study of college education," said President Hutchins.

Terms of the grant provide that the university shall add to the gift from other sources so that the annual budget shall be increased \$75,000 within five years. In fulfilling the purpose of the gift the university will appropriate a portion of it for salaries and operating expenses and a portion for the erection of several new buildings.

Contest for High School Pupils Announced

Awards amounting to \$4,000 will be paid during the present school year by ten leading magazines to high school pupils and schools producing the best piece of creative work. The prizes, ranging from \$50 to \$5, will be awarded for the best short story, essay, autobiography, one-act play, poetry, sports story, book review, editorial, magazine events and magazine cover work.

These awards, known as the "National High School Awards," will be judged by Henry Gordon Leach, editor of the *Forum*; Henry Seidel Canby, editor of the *Saturday Review of Literature*; Russell Doubleday, editor of the *World's Work*; Thomas B. Costain, associate editor of the *Saturday Evening Post*; W. J. de Grouchy, fiction editor of the *Ladies' Home Journal*, and Frederick L. Allen, editor of *Harper's*. Meritorious work will be published monthly in the *Magazine World* and in *World News*, and at the close of the year an additional collection will be published under the title of "Literary Leaves by Tomorrow's Writers."

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Include Schools, Colleges and Universities Throughout this Continent

The Sanitation, Service and Savings of SANI-DRI have been welcomed by Educational Executives. How hearty this welcome has been is best shown by the long list of satisfactory, full-functioning installations in schools, colleges and universities throughout North America. Below we print only a portion of this list, to indicate the widespread use of this modern washroom equipment.

Partial List Includes

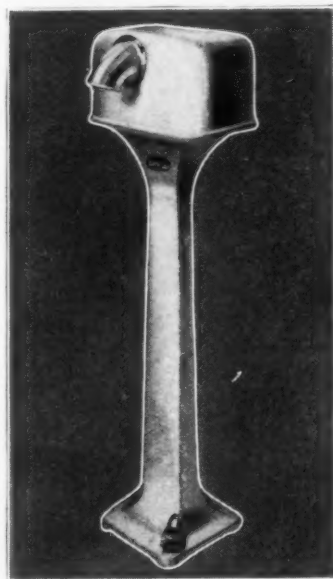
McGill University, Montreal, Canada.
University of California, Berkeley, Calif.
University of Washington, Seattle, Wash.
Western University, London, Ontario.
University of Utah, Salt Lake City.
University of Oregon, Portland, Ore.
University of Redlands, Redlands, Calif.
Colorado Agricultural College, Ft. Collins.
East High School, Buffalo, New York.
Salisbury High School, Salisbury, N. C.
Clarkston Public Schools, Clarkston, Wash.
Vallejo High School, Vallejo, Calif.
E. Grand Rapids High, E. Gr. Rapids, Mich.

Minneapolis Public Schools, Mpls., Minn.
Board of Education, Sioux City, Iowa.
State College of Pullman, Seattle, Wash.
Teachers College at Greeley, Colo.
Weyburn School Board, Weyburn, Sask.
Westervelt School, London, Ont.
El Monte Union High, El Monte, Calif.
Nova Scotia Tech. School, Halifax, N. S.
Central City Business School, Syracuse, N. Y.
St. Joseph School, Cartierville, Quebec.
Protestant School Board, Montreal, Quebec.
Fieldston High School, New York City.
Board of Education, Chicago, Illinois.

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Electrical Division, Dept. 12 G.

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In the Educational Field

J. H. MCBURNEY has recently been made superintendent of the schools of Onawa, Iowa. MR. MCBURNEY was superintendent of schools at Lake View, Iowa, for seven years. H. P. TRUMBO, of California, formerly of Iowa, succeeds MR. MCBURNEY as superintendent at Lake View.

A. O. H. SETZEPPANDT has been made supervising principal of elementary schools at Tulsa, Okla. MR. SETZEPPANDT was superintendent of schools of Rolfe, Iowa, for five years. C. S. DARROW will succeed him at Rolfe.

FRED C. KEELER has been appointed superintendent of schools of Boone County, Illinois. MR. KEELER will complete the unexpired term of HOMER HALL, now on the faculty of the Northern Illinois State Teachers College, DeKalb.

T. H. TABLER, formerly superintendent at Kingsville, Ohio, is now superintendent at North Lima.

D. RUSSELL BAKER, formerly principal of the junior high school, Hamilton, Ohio, is now superintendent of schools of that city.

ALBERT C. SHUCK was recently elected to the superintendency of schools at Ocean City, N. J., to succeed J. M. STEVENS.

DR. HENRY SUZZALO, formerly president of the University of Washington, has been appointed director of the survey of the duties of the federal government to education undertaken by the National Advisory Committee on Education. The Julius Rosenwald Fund has provided \$100,000 for the expense of this survey. DR. SUZZALO is now making a study of graduate education for the Carnegie Foundation for the Advancement of Teaching.

DR. WILLIAM C. FRENCH, formerly superintendent of schools, Durant, Okla., has been selected as professor of elementary education in the teachers college of George Washington University, Washington, D. C.

CHARLES DICKEY, superintendent of schools of Allegheny County, Pa., and ROBERT E. LARAMY, superintendent of schools of Altoona, Pa., have received appointments from Governor Fisher of Pennsylvania to serve on a state commission which is to investigate schools for the blind and deaf.

EXSUPERINTENDENT R. J. FITZGERALD, who served eight years as county superintendent of Nevada County, Calif., died recently in San Francisco.

CARL ZANGMEISTER, who was principal of the high school, Bridgeport, Ohio, for several years, has recently been made superintendent of the district schools at Philo, Ohio.

J. M. DAVIDSON has been made superintendent of schools at Memphis, Mo., succeeding W. P. SHOFSTALL, now secretary of research in Stephens College, Columbia, Mo.

GUY H. BROWN has been made superintendent of schools at Fredericksburg, Va., succeeding M. B. DICKINSON.

J. N. DENTON, principal of the high school of Monroe, Ga., for four years, has been elected superintendent of the Monroe schools, succeeding E. A. WRIGHT, who has resigned.

WALTER H. THOMAS, principal of the George Mason High School, Potomac, Va., has accepted the position of superintendent of schools at Warrenton, Va. MR. THOMAS succeeds JAMES E. AMBLER, resigned.

WILLIS A. SUTTON, superintendent of schools, Atlanta, Ga., has been made general chairman of a statewide three-year celebration of the two hundredth birthday of the state of Georgia, culminating in its anniversary in 1933.

CHARLES S. WRIGHT, superintendent of schools at Lawrence, New York, was made president of the New York State Council of Superintendents at a meeting at the Lake Placid Club. He succeeds H. W. LANGWORTHY, Gloversville. GEORGE J. DANN, Oneonta, was elected vice-president and E. L. ACKLEY, Johnstown, secretary-treasurer.

H. L. COMER, formerly superintendent of schools of Ocheyedan, Iowa, who resigned to go into government service, is now head of an agricultural school in the island of Luzon, one of the Philippine Islands.

W. D. WOLFE, formerly superintendent of schools at Hiawatha, Kan., has become head of the schools of Atchison, Kan. He succeeds T. B. PORTWOOD.

FRANK H. NYE is the new high school principal of the Mamaroneck Road School, Westchester County, New York, recently completed at a cost of \$1,500,000. Before taking his present position, MR. NYE was special assistant to the superintendent of schools, Buffalo, N. Y.

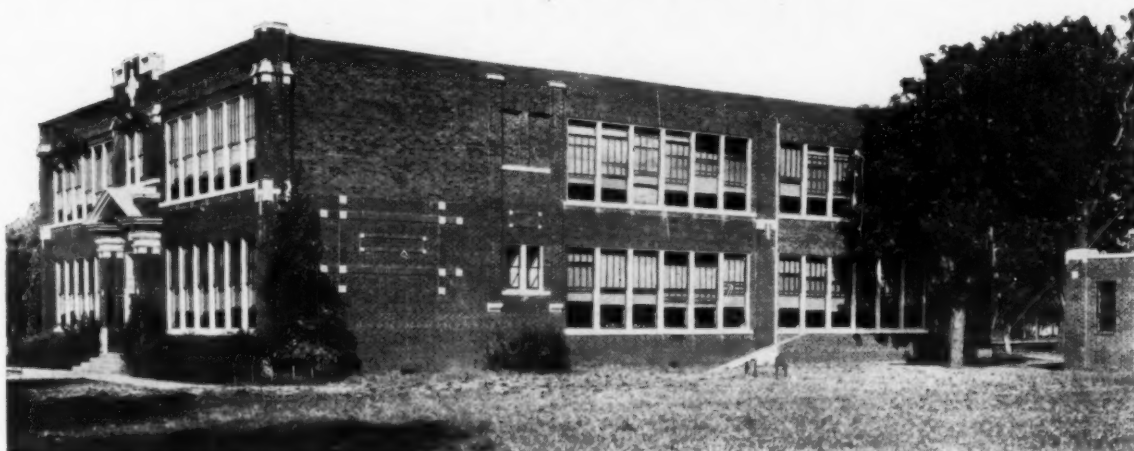
BENJAMIN H. VANDENBELT, former superintendent of the schools at Marshall, Mich., entered the state department of public instruction as high school inspector on November 1. He succeeds M. A. KOPKA who resigned to become principal of the junior high school at Hamtramck, Mich.

WILLIS ELDEN DODGE, who has been principal of the high school at Great Neck, N. Y., has been named superintendent of the Great Neck schools following the retirement of OSCAR S. WOOD.

F. HERMAN FRITZ, superintendent of schools, Ashley, Pa., for the last five years, has accepted an offer to become superintendent of schools at Pottstown, Pa. S. M. STOEFFER, superintendent of the Pottstown schools, resigned to accept a similar position in Wilmington, Del.

DUDLEY L. WHITMARSH, for the last sixteen years headmaster of the high school at Townsend, Mass., has resigned.

A. MORTIMER CLARK, formerly principal of the James Madison High School, New York City, has been appointed principal of the new DeWitt Clinton High School, New York City, one of the largest high schools in the country.



Stevenson School, Winfield, Kans. Architect: J. M. Fuller, Winfield; Consulting Engineer: J. M. O'Connor, Wichita; Heating Contractor: McGregor Hardware Co., Winfield; General Contractor: Phil Frankenfeld, Winfield.

This Winfield School Building is typical of scores of modern structures which now enjoy the benefits of heating supplied by the Dunham Differential System

ALL over the United States and Canada fine new schools like the Stevenson School of Winfield, Kans., are deriving the advantages offered by the comfort, close regulation and economy of the Dunham Differential Vacuum Heating System. Beyond all possibility of dispute these schools are more comfortable, are more healthful for teachers and pupils and are much more economically heated than those where other types of heating systems are installed. Facts and figures prove these statements. The reasons why such results follow the installation of the Dunham Differential System are worth investigating. Why not ask us to supply you recent data on fuel cost savings, etc.?

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tem and individual parts of the apparatus used in that system are fully protected by United States Patents Nos. 1,727,965, 1,644,114, and 1,706,401, and Canadian Patents Nos. 282,193, 282,194, 282,195. Additional patents in the United States, Canada and foreign countries are now pending.

In the Educational Field

JOHN A. CRAIG, for fourteen years principal of Muskegon High School, Muskegon, Mich., is the new superintendent of the public schools of Muskegon, succeeding MARION W. LONGMAN who has ended eight years of service there. GEORGE A. MANNING, who for four years was principal of Saginaw Arthur Hill High School, succeeds Mr. CRAIG.

HARRY A. LITTLE, county superintendent of Ashley County, Arkansas, has become state supervisor of elementary and rural schools in the state department of education.

R. O. EVANS, who has served as superintendent of the Mott, N. D., schools for five years, succeeds JOHN DIETRICH as superintendent of schools, Helena, Mont. MR. DIETRICH has resigned after nineteen years of service to become consulting superintendent.

ALICE ROSEMOND has resigned as assistant to the dean of women, Ohio State University, to become dean of women at Marietta College, Marietta, Ohio.

D. FROHAM MEEKER, formerly principal of Chautauqua Rural High School, is the new superintendent of schools at Chautauqua, Kan. He succeeds W. A. ALAIR, who has gone into business. REECE VANDRUFF is the new high-school principal.

F. T. GLIDDEŃ, assistant superintendent of schools, Indianapolis, Ind., has been elected superintendent of the Marion County schools.

DANIEL B. HELLER, Vermilion, S. D., has been elected superintendent of schools at Eveleth, Minn.

CHARLES LEWIS, Westwood, N. J., succeeds I. M. STANTON as superintendent of schools at Frankfort, N. J.

G. T. STUBBS is now superintendent of schools at Durant, Okla.

URY MCKENZIE is now superintendent of schools at Batesville, Ark., succeeding SIDNEY PICKENS, resigned.

D. C. CLARKE has been reelected superintendent of schools, Bonner Springs, Kan.

CECIL C. RIDDLE has been elected superintendent of schools, Evanston, Wyo., to succeed WILLIAM B. FEATHERSTONE. MR. RIDDLE was superintendent at Baggs, Wyo., last year.

C. H. HUFFORD, Boulder, Colo., has become superintendent of schools at Coleman, Tex.

GEORGE H. STUDENBROEKEK has succeeded H. H. EWALD as superintendent of schools at Virgil, Kan.

HATTIE HECKETHORN, superintendent of schools in McPherson County for several years, is the new principal of the Girls' Industrial School at Beloit, Kan.

D. L. DOWNING of the Van Buren township schools, Indiana, has been elected superintendent of the Covington-Troy schools.

NEWELL TERRY is the new superintendent of schools at Enterprise, Kan., succeeding ROY NEHRER.

Indiana Plans School of the Air

The State Department of Public Instruction of Indiana and station WFBM are planning a school of the air similar in many ways to those in other states, and cooperative with Ohio, according to the *Indiana Education News*. WFBM has requested the Federal Radio Commission for the use of 50,000 watts, the same power as that employed by station WLW. The Indiana station will await the decision of the commission, but will go ahead with its plans on the assumption that the request will be granted.

Some features offered by the school of the air will be regular lecture courses by members of the faculties of the four state institutions of higher learning in both elementary and secondary branches of study. State leaders in business, science, art, music and letters will give talks during the year.

The Institute of International Education Exchanges Students

The Institute of International Education has welcomed 123 European students to our institutions of higher learning upon its exchange fellowships and has sent 127 American students to foreign countries, is noted in *School and Society*. These fellowships have been made possible through the generosity of universities in this country and abroad. They provide for able students the experience of a year's study in a foreign institution, and they serve as an important agency in promoting friendship and understanding between the different nations all over the world.

France, Germany, Switzerland, Czechoslovakia, Austria, Hungary and Italy are the countries that now maintain these exchange relationships. Some of the fellowships are not of an exchange nature. The American Field Service fellowships, a memorial to American ambulance drivers in the French service, are for advanced study at French universities. The fellowship provided by the Germanistic Society of America is another important one intrusted to the institute. The Willard Straight Fellowship, also devoid of any exchange relationship, enables a student from an American university to spend three years in the study of Chinese civilization in China.

California Schools Plan Aviation Courses

According to a statement made public recently by the aeronautics branch, Department of Commerce, the state curriculum committee of California recently adopted an outline of study for a course in commercial aviation to be given in the high schools of the state.

The inclusion of this course as a part of the education program of California high schools is a development that will probably attract much attention in other states, many of which are expected to follow California's lead in this progressive educational movement.

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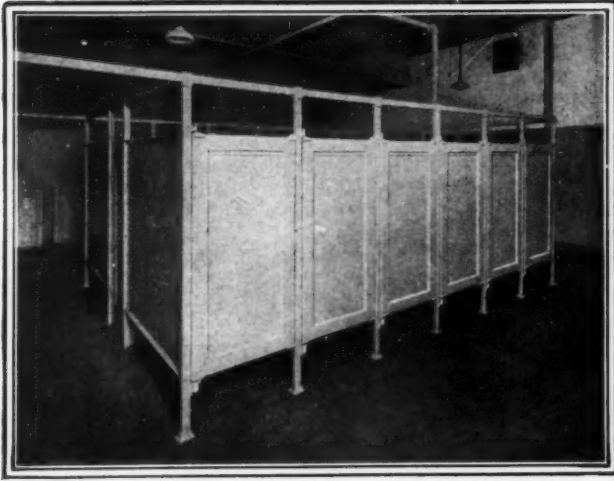
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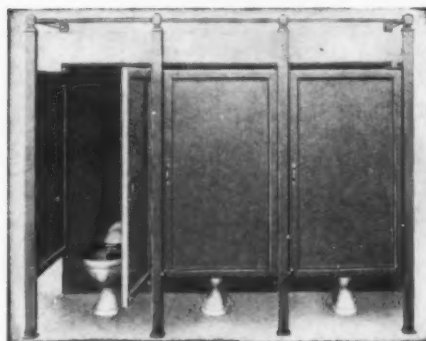
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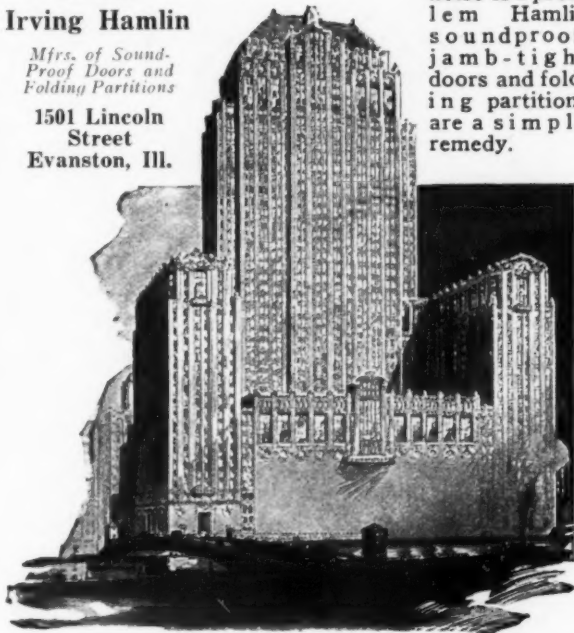
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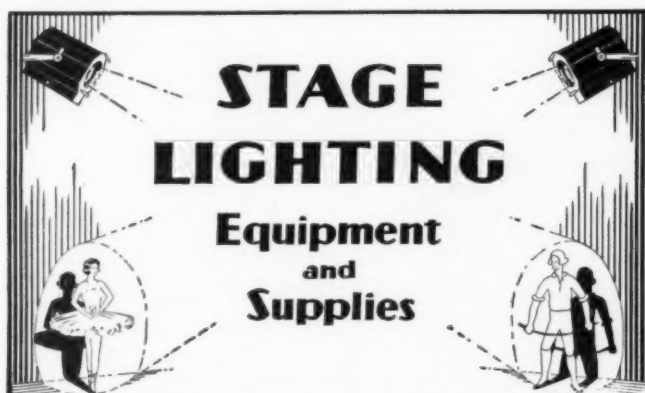
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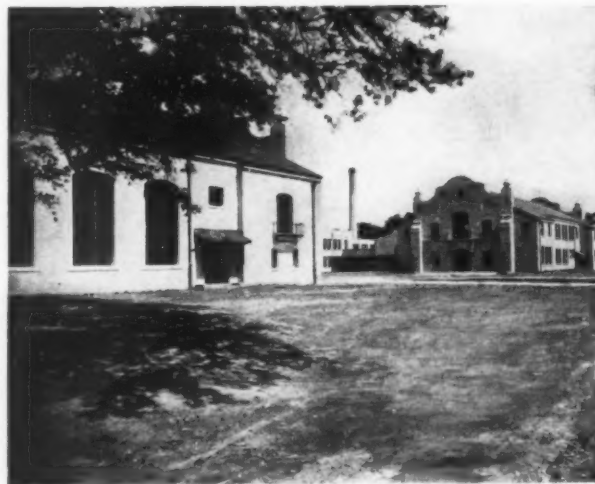
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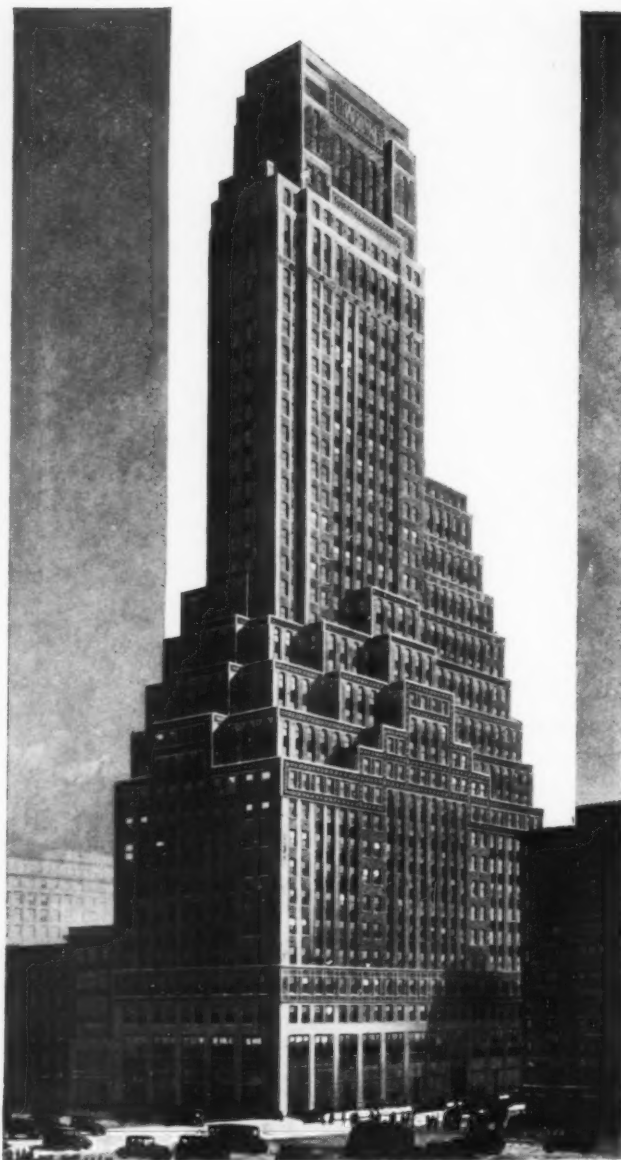
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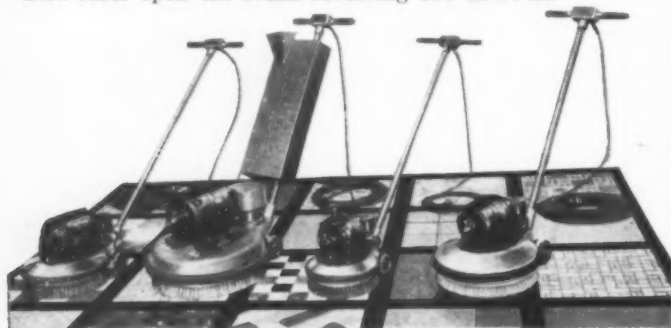
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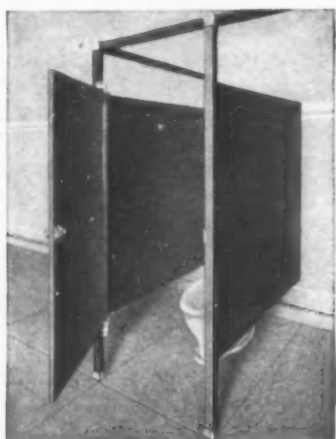
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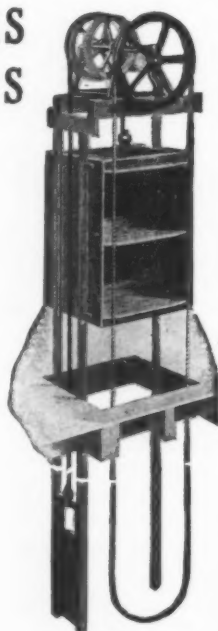
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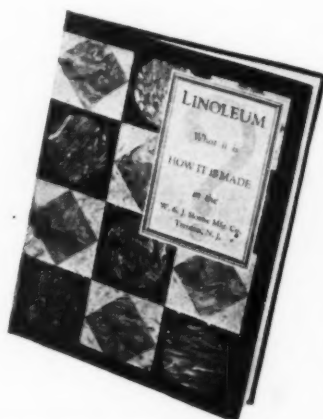
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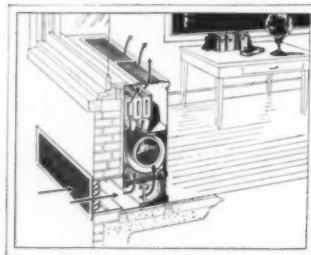
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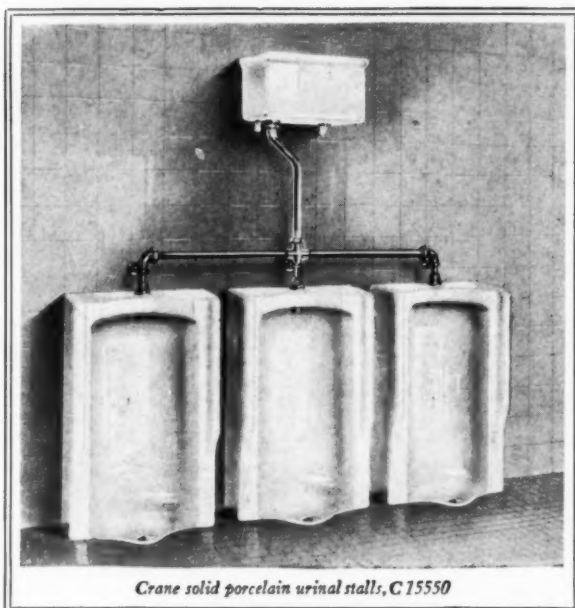
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